BOARD OF SUPERVISORS WORK SESSION
GOVERNMENT CENTER BOARD ROOM
JUNE 26, 2012 - 4 P.M.

A. Call to Order
B. Roll Call
C. Board Discussions

1. Fiber Optic Ring Construction Report (Presentation)

2. Rural Lands

- Summary
- Memorandum
- Attachment 1 - Update on Rural Land Tools in Peer Localities
- Attachment 2 - Residential Development in Rural Lands – Summary Concepts
- Attachment 3 - Rural Lands Steering Committee Recommendations (May 23, 2006)
- Attachment 4 - Summary of Potential Impacts of Rural Lands Study Recommendations (May 9, 2006)
- Attachment 5 - Rural Lands Residential Design Guidelines
- Attachment 6 - User's guide for New Development Options for Rural Land Owners (January 29, 2007)
- Attachment 7 - Draft Narrative Ordinance (January 29, 2007)
- Attachment 8 - Table of Draft Narrative Ordinance Development Options

D. Break

MEMORANDUM COVER

Subject: Rural Lands

Action Requested: Shall the Board of Supervisors provide guidance on how to proceed with the Rural Lands ordinance update?

Summary: At the concluding work session pertaining to the Transfer of Development Rights (TDRs) Feasibility Study, the Board decided to hold a dedicated work session to discuss the update of the districts most associated with rural lands (A-1 and R-8).The scope of work related to the rural lands districts in the ordinance was developed based on the guidance provided by the 2009 Comprehensive Plan.

The work session and discussion will be focused on three aspects of the rural lands: Non-Residential Development, TDRs, and Residential Development. Staff has developed a series of decision points to guide the Board's discussion. Input received during the discussion will be valuable to help guide work during the TDR feasibility study and direct work on the overall A-1 and R-8 ordinance updates.

Ms. Leanne Reidenbach will give a portion of the presentation with Mr. Vlad Gavrilovic of Renaissance Planning Group presenting information regarding the 2006 Rural Lands Study and peer locality research. Ms. Tammy Rosario and Mr. Allen Murphy will also be in attendance.

Fiscal Impact: NA

FMS Approval, if Applicable: Yes ☐ No ☒

Assistant County Administrator

Doug Powell _____

County Administrator

Robert C. Middaugh _____

Attachments:

1. Update on rural land tools in peer localities
2. Residential Development in Rural Lands – Summary Concepts
3. Rural Lands Steering Committee Recommendations (May 23, 2006)
4. Summary of Potential Impacts of Rural Lands Study Recommendations (May 9, 2006)
5. Rural Lands Residential Design Guidelines
6. User's guide for New Development Options for Rural Land Owners (January 29, 2007)
7. Draft narrative ordinance (January 29, 2007)
8. Table of draft narrative ordinance development options

WORK SESSION

Date: June 26, 2012

M E M O R A N D U M

DATE: June 26, 2012

TO: The Board of Supervisors

FROM: Leanne Reidenbach, Senior Planner II
Tammy Rosario, Principal Planner

SUBJECT: Rural Lands

Background and Purpose of Work Session

At the concluding work session pertaining to the Transfer of Development Rights (TDRs) Feasibility Study, the Board of Supervisors decided to hold a dedicated work session to discuss the update of the districts most associated with rural lands (A-1 and R-8). The scope of work related to the rural lands districts in the ordinance was developed based on the guidance provided by the recently adopted 2009 Comprehensive Plan. The Comprehensive Plan focuses on three main components of rural lands actions:

(1) **Transfer of Development Rights (TDRs).** LU 6.1.2.d. specifically calls for staff to "investigate the benefits and feasibility of developing and implementing a TDR program that would allow the TDRs from sending areas to receiving areas," including monitoring the status of TDR programs in Virginia.

(2) **Non-Residential Options/Economic Development.** Promotes the economic viability of farming and forestry as industries through various measures such as investigating TDRs, promoting the purchase of development rights, evaluating permitted and specially-permitted actions, and protecting active farmland and prime farmland soils (LU 6.1 and related sub-actions on page 156).

Seven actions in the Economic Development section also address supporting traditional agriculture and forestal uses, identifying opportunities for agri-business and eco-tourism, and helping with marketing of local farm products (ED 8 and related actions on page 26).

(3) **Residential Development.** Amend the Zoning Ordinance, Subdivision Ordinance, utility regulations, and related policies to promote a pattern of residential development outside the Primary Service Area that preserves farm and forestal land. Consider providing more than one option so long as an overall very low-density pattern can be achieved. Ultimately, it is likely that a combination of both incentives and regulatory tools will need to be developed to form a package that balances providing options to property owners with the overall preservation of rural economy and rural character policy goals (LU 6.2 and related sub-actions on page 157).

Specific goals for today's work session are to:

1. Provide a brief recap of the TDRs Feasibility Study and update on the status of non-residential uses in the rural lands;
2. Review peer locality rural planning tools;
3. Review the process, chronology, guiding principles, and findings of the 2006 Rural Lands Study;
4. Receive Board input on critical decision points and questions; and
5. Determine the course of action desired by the Board.

Mr. Vlad Gavrilovic, a consultant from Renaissance Planning Group who participated in the original Rural Lands Study in 2006, will be present at the work session.

(1) Transfer of Development Rights

The Board held a work session on October 25, 2011, to discuss the results of the TDRs Feasibility Study. As discussed at that work session, though a TDR program could be feasible in James City County based on the feasibility study conducted by DC&E, difficult decisions and significant changes would be required to establish the right conditions to make the program successful. The following are several reasons why the Board directed staff not to pursue a TDR program at this time:

1. The most effective options for implementation would increase the number of units able to be built in the County, which would not meet the Board's directive from the December 2010 work session. The options that would not increase build-out would require a downzoning of receiving areas, sending areas, or both. A transfer ratio of one sending area equaling one receiving area would not be marketable in the County.
2. Strategies proposed to further incentivize the use of TDRs and bring the transfer ratio closer to one sending area equaling one receiving area would involve waiving proffers for transferred units. This would shift the cost of a TDR program from private developers to the public to mitigate the impacts of the additional units.
3. Significant changes would be required to ordinances potentially in both sending and receiving areas, especially regarding setting commercial Floor Area Ratio (FAR) maximums if residential unit to commercial square footage transfers are permitted. Depending on where the FAR is set, this factor could limit the size of by-right commercial development and make larger commercial projects more costly since developers would have to pay for TDRs to reach higher FARs. Comprehensive Plan amendments related to residential density may also have to be pursued depending on the implementation strategy employed.
4. The implementation options that would not increase the number of units able to be built in the County would only conserve about 28 percent of the sending area due to the high transfer ratios, the large sending area, and the small receiving area. The Board would need to prioritize and reduce sending areas or expand receiving areas.

Staff continues to monitor the progress of peer localities and legislation relative to TDR. Frederick County is still the only locality in Virginia with a TDR program and no transfers have occurred to date. Legislation has not changed substantially since the last work session.

(2) Non-Residential Options for the Rural Lands

Staff continues to research the permitted and specially permitted uses in rural land districts of other localities and work with the Rural Economic Development Committee to promote discussions on economic development options in rural lands. Through this partnership, staff met with the Rural Economic Development Manager of Isle of Wight County to discuss actions that the county has pursued to protect rural lands through adding economic value. Staff more recently participated in a rural caucus meeting intended to connect local farmers, producers, restaurants, conservancies, schools, and health foundations. Staff has also attended workshops pertaining to this topic and continues to evaluate the ordinance for ways it can be improved to promote economic development. Staff recognizes that approaches to non-residential development will be an important pairing with potential residential changes and will continue to work in this area.

(3) Residential Development: 2006 Rural Lands Study

Process

As noted in the 2009 Comprehensive Plan, there are several approaches to protecting the integrity of the rural lands. One is to examine the residential aspect of rural lands and look at the existing work that was done in 2005-2006. This study involved public input meetings, discussed the policy implications of changing the ordinance, and included a review of the tools being used by peer localities. An update to the peer locality

review (Attachment No. 1) was conducted in 2010 to further explore how effective these tools have been and what lessons James City County can learn from these examples.

Overall, the 2005-06 process to develop recommendations for residential development in the rural lands was detailed, inclusive, and comprehensive. There were three guiding principles used for developing draft recommendations:

(1) Respect property rights;
(2) Reduce the overall impact of residential development in the Rural Lands; and
(3) Encourage development patterns that protect the rural character of the area.

The first stage of the process involved the Steering Committee, composed of eight members representing the interests of property owners, developers, planning commissioners, and residents. Outcomes from the first stage of the process included a recommendation and decision matrix (see Attachment No. 3), a technical memorandum on the impacts of potential changes (see Attachment 4), and a set of Residential Development Design Guidelines (see Attachment No. 5). The second step in the process was a Technical Committee charged with putting the policies into ordinance form. The Technical Committee was composed of members of the Board of Supervisors, Planning Commission, and the Steering Committee. After much additional work, the Technical Committee produced a draft narrative ordinance and user's guide (see Attachment Nos. 6 and 7). Overall, the two committees held more than 15 meetings and three public workshops to discuss ideas and recommendations for the County's rural areas.

Subsequently, the 2009 Comprehensive Plan discusses detailed actions for residential development in the Rural Lands. These include:

- LU 6.2.1. Setting lot sizes for conventional subdivisions at a very low-density pattern that is significantly lower than currently permitted *(note: A-1 and R-8 districts currently permit one dwelling unit per three acres).*
- LU 6.2.2. Revising the A-1 rural cluster provisions to allow a density lower than currently permitted but higher than the density for very low-density conventional subdivisions noted in LU 6.2.1.
- LU 6.2.3. Providing some incentives for low-density development, including waiving the central well requirement, allowing private streets in limited circumstances, or streamlining the approval process by making it by-right, including provisions that allow land in conservation easements in cluster developments to remain in agricultural or forestal production.

The Rural Lands land use designation descriptions and standards (page 139) mirror these actions by encouraging lower overall gross densities or small-scale rural clusters that meet the outlined standards for residential rural cluster development (such as preserving large contiguous blocks of open space that has value in protecting view sheds, sensitive environmental areas, habitats, woodland, and farmland).

Draft Narrative Ordinance Options
There are currently limited options for by-right residential development in the A-1 and R-8 districts. The standard option is to develop at one dwelling unit per three acres, with no requirements for open space. Alternatively, there is a provision in A-1 for a rural cluster, which allows developers to reduce lot size to a minimum of one acre with a maximum gross density of one unit per two acres if they receive a Special Use Permit (SUP) and meet specified design standards. Options for family subdivisions exist that allow lots as small as one acre.

The draft narrative ordinance provided for four development options in both the A-1 and R-8 ordinances:

(1) Fixed Lot Option

(2) Conventional Option
(3) Base Density Cluster Option
(4) Rural Conservation Cluster Option

Details regarding these options are available in Attachment No. 8. The goal of providing the four options was to give property owners more choices than currently available in the ordinance. They were also intended to be presented as a package to include a balance of incentives and limitations in order to best meet the three guiding principles of the Rural Lands Study noted above.

Key Decision Points:

The following are a series of decision points and questions related to the rural lands ordinance update, which will form the basis of discussion at the work session. Staff requests guidance related to the draft narrative ordinance as it will direct work on the overall A-1 and R-8 ordinance updates.

1. Do you agree with the original guiding principles developed by the Rural Lands Steering Committee and should any additional guiding principles be added based on the 2009 Comprehensive Plan?

   (1) Respect property rights.
   (2) Reduce the overall impact of residential development in the Rural Lands.
   (3) Encourage development patterns that protect the rural character of the area.

2. At the work session in October 2011, the Board indicated that it would be interested in retaining some elements of the 2006 Rural Lands Study. Is this still the consensus and if so, what elements should be preserved and built on moving forward? What elements need to be re-examined or researched further? Note that the list below attempts to include the major elements from the 2006 study mostly pertaining to density but is not all-inclusive:

   a. Including a menu of options so landowners have more choices in how to develop their property.
   b. Lowering by-right density but still allowing development at the currently permitted density for smaller subdivisions.
   c. Lowering by-right density but allowing individual wells even for major subdivisions.
   d. Including a density bonus for cluster development that is still less than currently permitted rural densities.
   e. Lowering by-right density but including provisions for a by-right cluster option at the same density with tighter open space standards.
   f. Including shared driveway provisions.
   g. Limiting the number of flag lots permitted within a subdivision.

3. Below are some general concepts for Rural Lands that are listed as a starting point for further discussion. Which concepts do you support for consideration in the County?

   - Keeping current rural permitted densities but… (Please note that Options a, b and c are not consistent with the recommendations in the 2009 Comprehensive Plan that were discussed on page 3.)

      a. Providing a waiver for the community well requirement and permitting private wells on large lots as an incentive for lower density rural development.
      b. Requiring tighter design and open space standards for by-right development.
      c. Removing the requirement for cluster developments to receive an SUP and adding open space standards.

- Lowering the permitted by-right density in Rural Lands and…

    d. Having no option to develop at the currently permitted density.
    e. Developing a new conservation zoning district that allows development at the currently permitted density with tighter procedural, design, and open space standards.
    f. Offering density bonuses based on providing items from a menu of design features (such as increased roadway or perimeter buffers, advanced secondary treatment for septic systems, open space, etc.).

g. Requiring mandatory cluster development in all Rural Lands or in designated areas.
h. Allowing mass septic drainfields or off-site individual septic drainfields as an incentive for cluster development.
i. Increasing lot widths, buffers and/or road setbacks for by-right development.
j. Reducing the number of lots that can be served by individual wells (i.e., changing from five lots to three lots to trigger communal well requirement).
k. Permitting certain agricultural or eco-tourism uses on common open space parcels.
l. Permitting private streets in certain subdivisions.
m. Other concepts?

4. What information do you need to be able to make an informed decision regarding rural lands ordinances (i.e., parcel information, public input, peer locality research, additional research items, panel discussion, etc.)? If public input is desired, what is the desired format (interviews, focus groups, forums, etc.)?

5. Staff anticipates another work session in early 2013 to update the Board on progress and receive feedback. How should staff proceed with rural lands ordinances in the interim?

    a. Update maps, data related to development in the County's rural lands and additional peer locality research for residential and non-residential rural lands tools. Collect broad and/or targeted public input based on the Board's feedback.
    b. Bring together professionals from other jurisdictions for a panel discussion with the Board pertaining to rural economic development, rural subdivision design/regulations, and other preservation tools.
    c. Focus on amendments pertaining to non-residential development and then re-evaluate residential options in 2013.

Leanne Reidenbach

Tamara A.M. Rosario

CONCUR:

Allen J. Murphy, Jr.

LR/TR/
RuralLands_mem

Attachments:

1. Update on Rural Land Tools in Peer Localities
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James City County Fiber Optic Ring Construction

June 26, 2012

Information Resources Management

What it's about

- **Reliable JCC-wide network**
- **Voice, data and video services**
- **Avoids communications costs estimated at over $1M/year**
- **Links between JCC Wi-Fi access spots**

James City County VIRGINIA Jamestown 1607

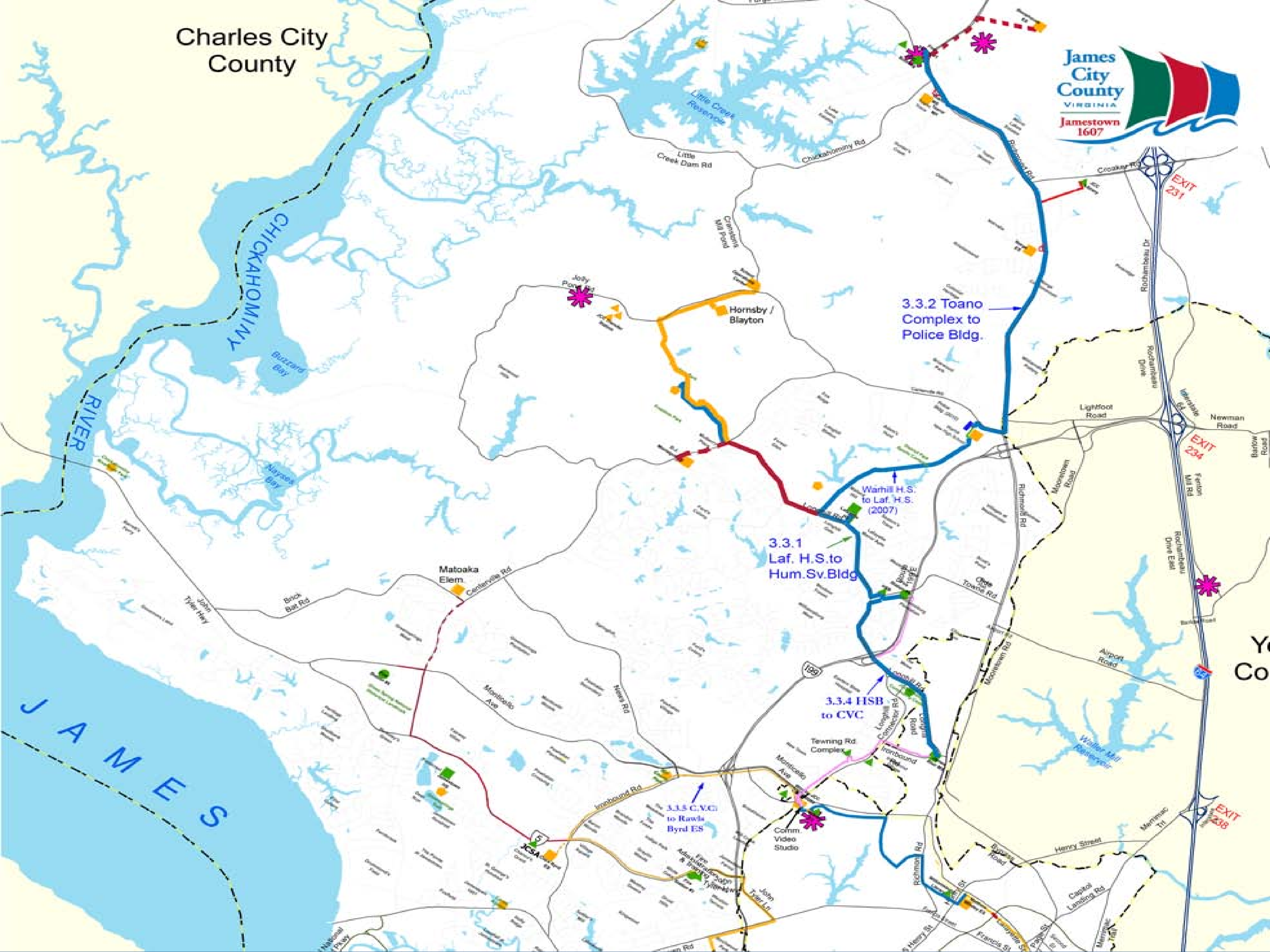
How far we've come:

Miles of underground conduit: 24.6

% Complete: 76%

Miles of cable: 20.75

% Complete: 63%



Charles City County
James City County VIRGINIA
Jamestown 1607
Little Creek Reservoir
Little Creek Dam Rd
Chickahominy Rd
Croaker Rd
EXIT 231
Richmond Rd
CHICKAHOMINY
RIVER
Buzzard Bay
Naysex Bay
Jolly Pond Rd
Hornsby / Blayton
3.3.2 Toano Complex to Police Bldg.
Rochambeau Dr
Centerville Rd
Lightfoot Road
Newman Road
Interstate 64
EXIT 234
Barlow Road
Fenton Mill Rd
Mooretown Road
Warhill H.S. to Laf. H.S. (2007)
Longhill Rd
3.3.1 Laf. H.S.to Hum.Sv.Bldg
Olde Towne Rd
Rochambeau Drive East
Matoaka Elem.
Centerville Rd
Brick Bat Rd
John Tyler Hwy
Airport Road
Waller Mill Reservoir
199
3.3.4 HSB to CVC
Longhill Connector Rd
Longhill Road
Tewning Rd. Complex
Ironbound Rd
Monticello Ave
Monticello Ave
News Rd
JAMES
3.3.5 C.V.C. to Rawls Byrd ES
Comm. Video Studio
Richmond Rd
Merrimac Trl
EXIT 238
Henry Street
Bypass Road
Capitol Landing Rd
JCSA
John Tyler Ln
Francis St

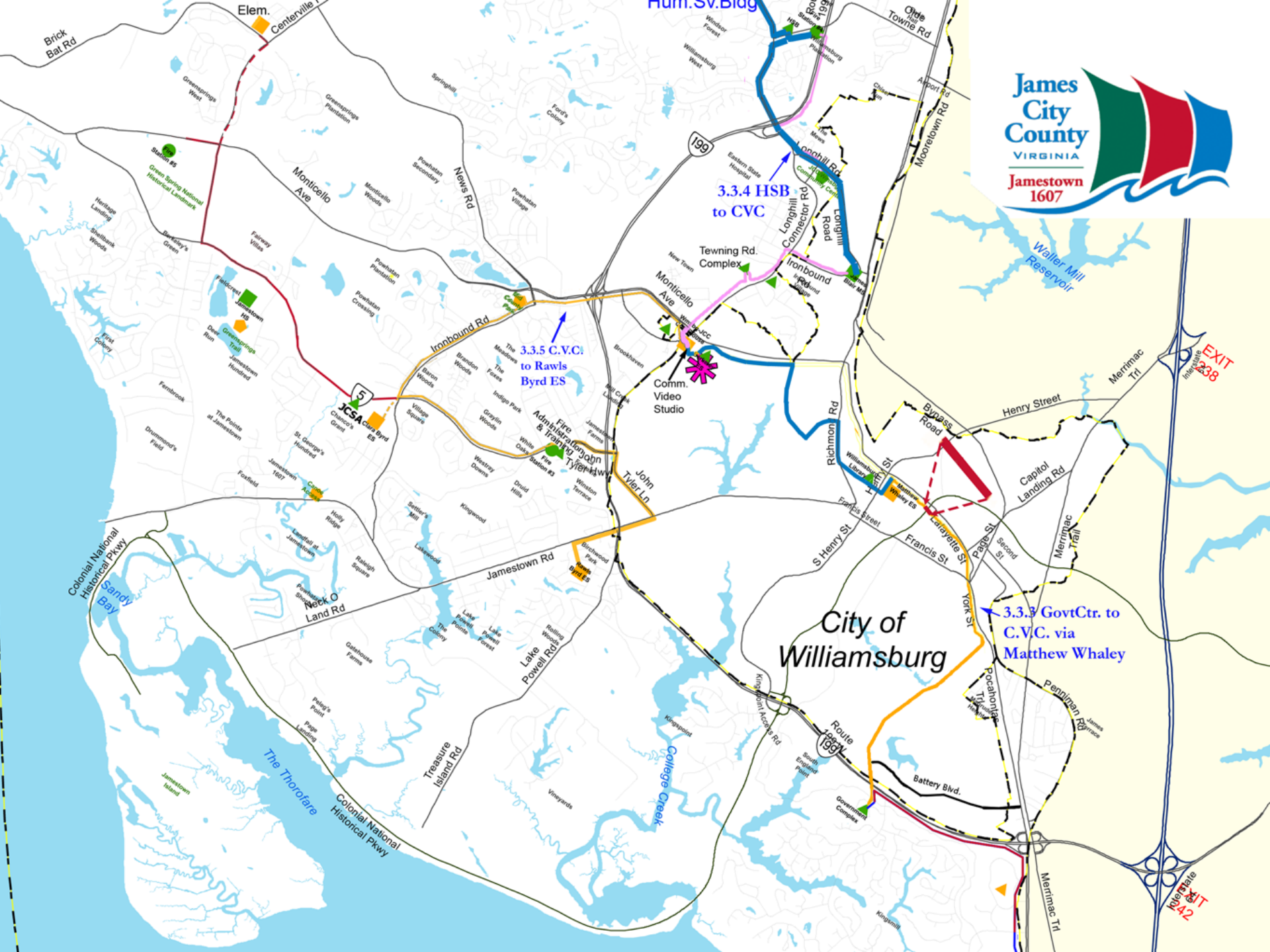
Partnerships

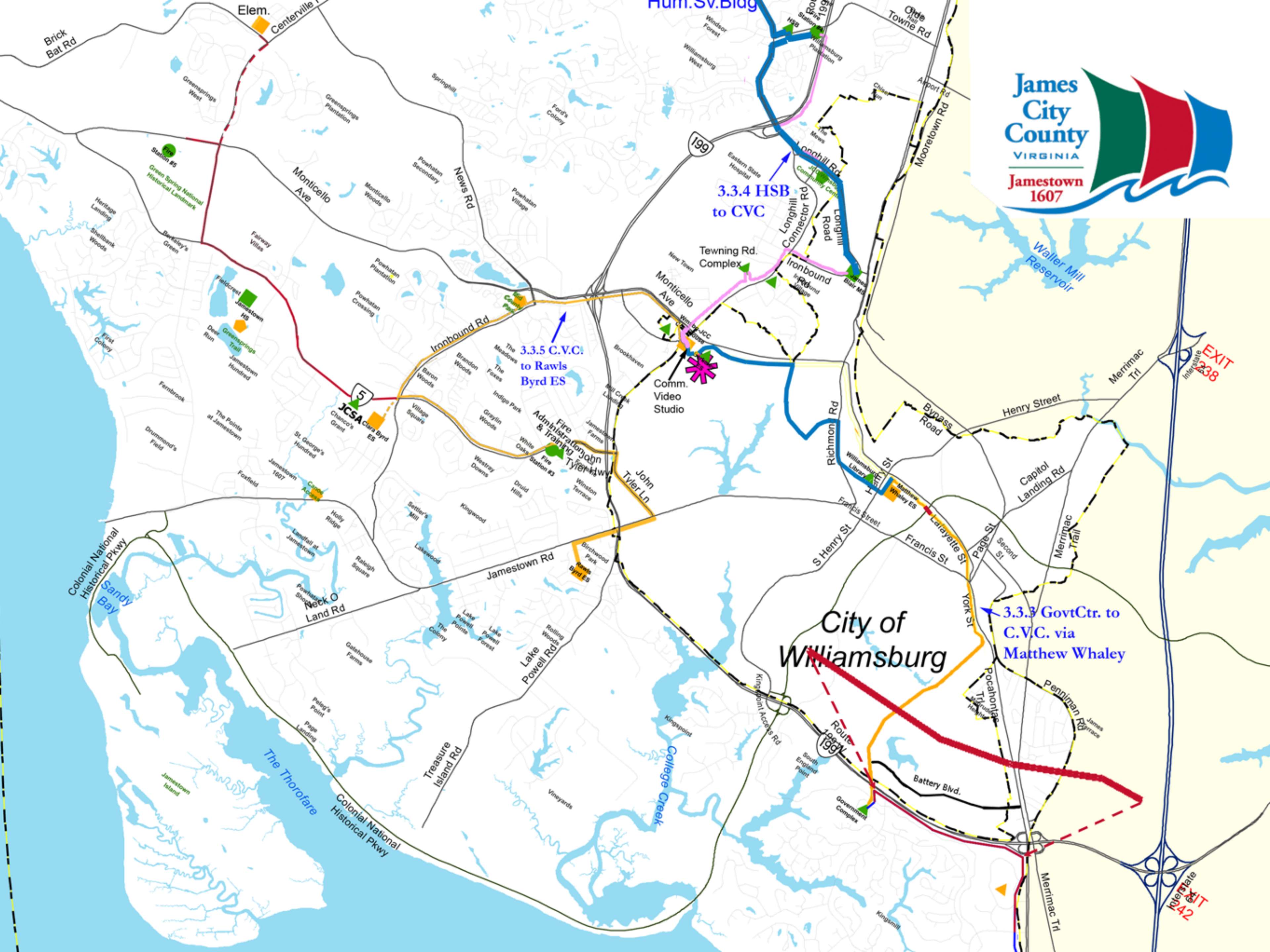
- **JCSA**
- **City of Williamsburg**
- **Williamsburg-JCC Schools**
- **Contractor: Cable Associates/Metro Fiber**

Concern: Easements

- **Public: State (VDOT) and Federal limitations**

- **Private: Cost, availability**


James City County
VIRGINIA
Jamestown 1607
Hum.Sv.Bldg
3.3.4 HSB to CVC
3.3.5 C.V.C. to Rawls Byrd ES
3.3.3 GovtCtr. to C.V.C. via Matthew Whaley
City of Williamsburg
Comm. Video Studio
Waller Mill Reservoir
Sandy Bay
The Thorofare
College Creek
Lake Powell Rd
Jamestown Rd
Ironbound Rd
Monticello Ave
Longhill Rd
Longhill Connector Rd
Richmond Rd
John Tyler Hwy
John Tyler Ln
Henry Street
Bypass Road
Capitol Landing Rd
Francis Street
Francis St
S Henry St
Lafayette St
Page St
York St
Second St
Merrimac Trl
Pocahontas Trl
Pennyman Rd
Battery Blvd.
Route 199
Treasure Island Rd
Neck O Land Rd
Colonial National Historical Pkwy
Mooretown Rd
Olde Towne Rd
Centerville Rd
Brick Bat Rd
Monticello Ave
News Rd
Ironbound Rd
Longhill Rd
Jamestown HS
Clara Byrd ES
Matthew Whaley ES
Berkeley MS
Fire Station #3
Fire Station #5
Fire Administration & Training
Towning Rd. Complex
Government Complex
Williamsburg Library
JCSA
EXIT 238
EXIT 242
Interstate 64



James City County
VIRGINIA
Jamestown 1607
Hum.Sv.Bldg
Elem.
Centerville Rd
Brick Bat Rd
Olde Towne Rd
Airport Rd
Mooretown Rd
Monticello Ave
News Rd
Longhill Rd
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Fire Administration & Training
Fire Station #3
Fire Station #5
Green Spring National Historical Landmark
Jamestown HS
Greensprings Trail
JCSA
Clara Byrd ES
Rawls Byrd ES
Matthew Whaley ES
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John Tyler Ln
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Merrimac Trl
Francis Street
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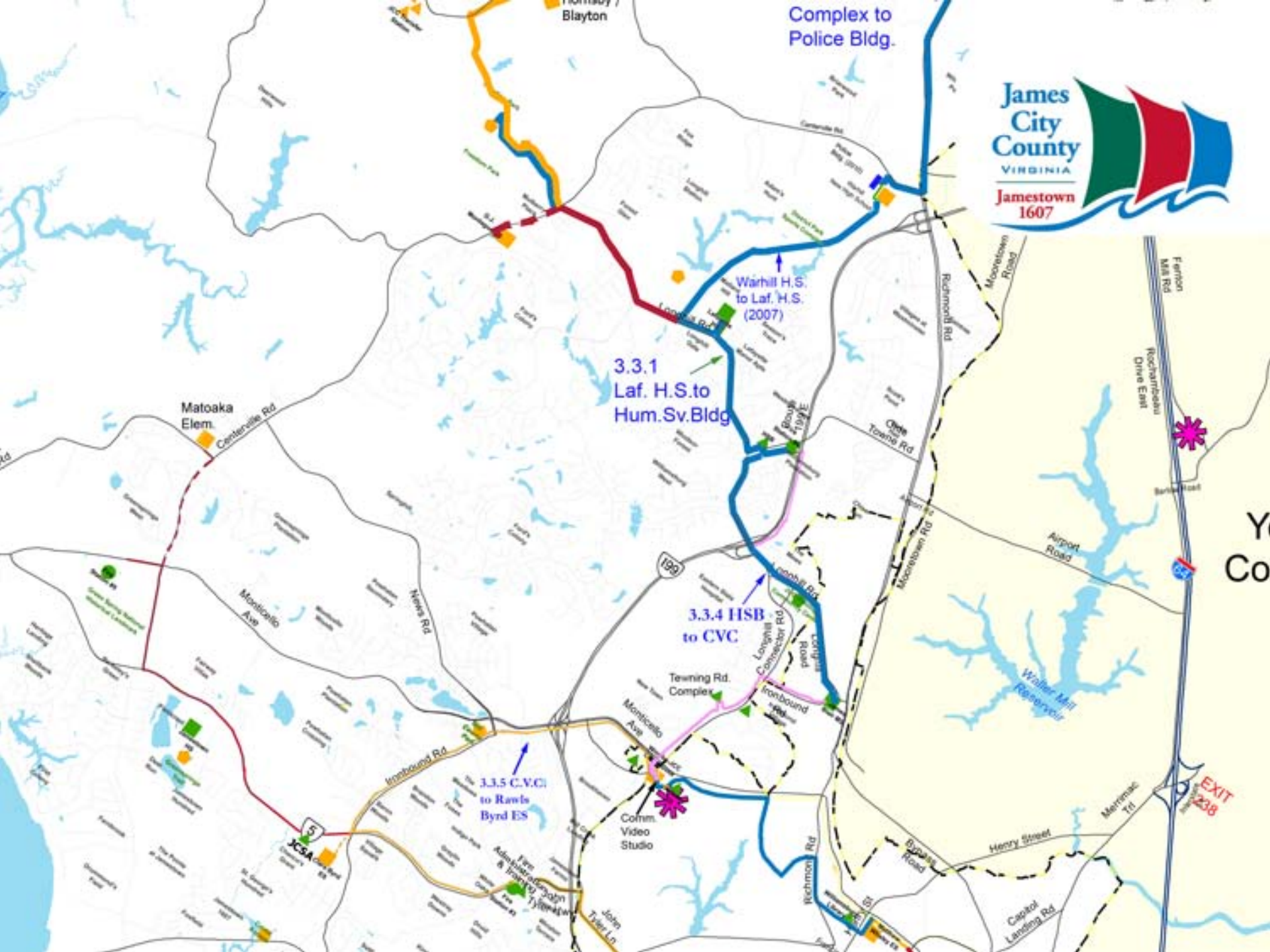
Lafayette St
Page St
Second St
S Henry St
York St
Pocahontas Trl
Penniman Rd
Battery Blvd.
Government Complex
Route 199
Kingsmill
Waller Mill Reservoir
EXIT 238
EXIT 242
Interstate 64

Changes:

- **First Phase Completion: Fall 2012/early 2013**
- **Defer Regional Jail Connection to Phase II**
- **Substitutes in 2012 for Regional Jail Connection (see map)**


Complex to
Police Bldg.
James
City
County
VIRGINIA
Jamestown
1607
Warhill H.S.
to Laf. H.S.
(2007)
3.3.1
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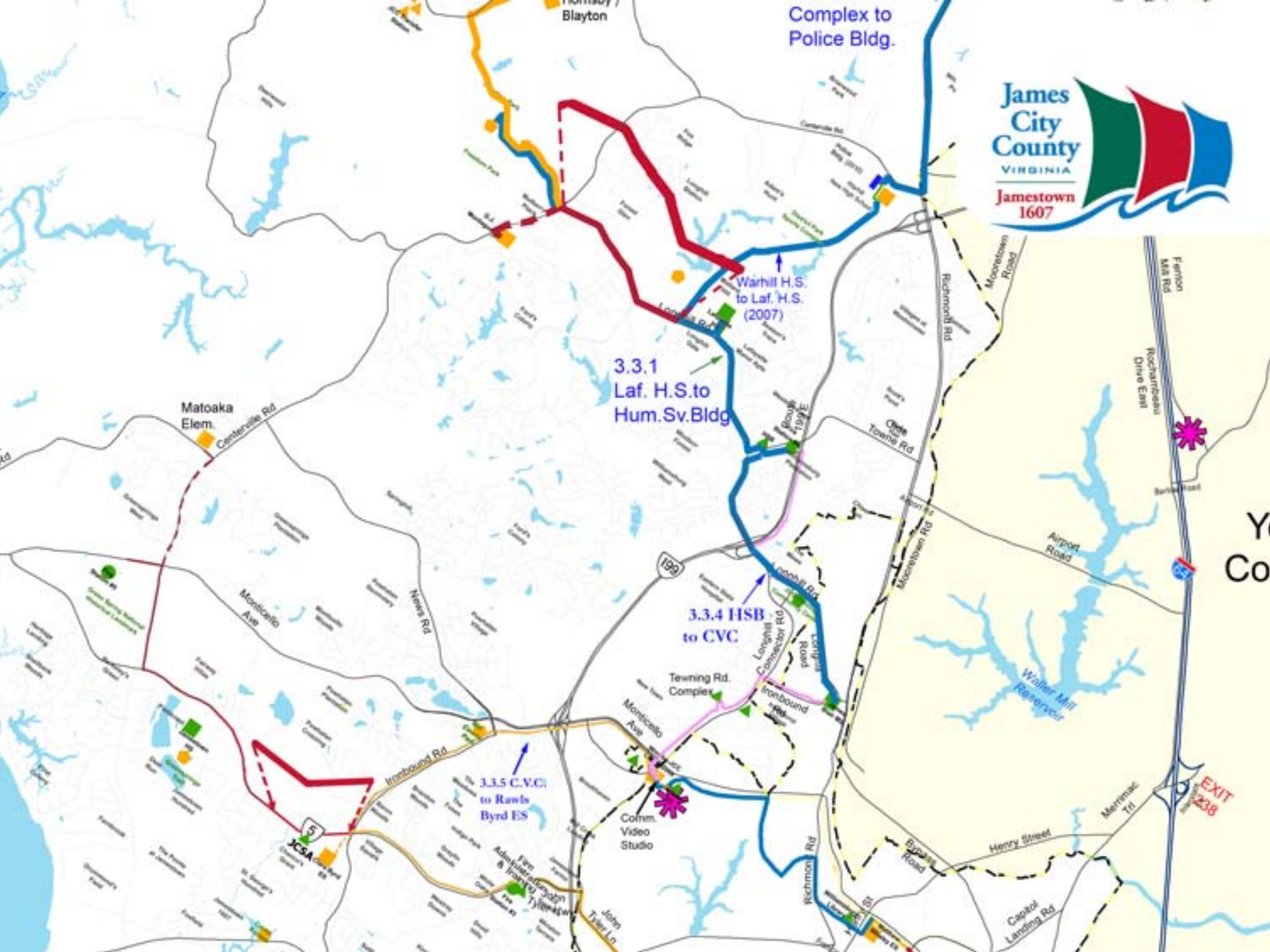
Ironbound Rd
3.3.5 C.V.C.
to Rawls
Byrd ES
Comm.
Video
Studio
Richmond Rd
Richmond
Road
Mooretown
Road
Mooretown Rd
Airport
Road
Waller Mill
Reservoir
Rochambeau
Drive East
Fenton
Mill Rd
Merrimac
Trl
Henry Street
Bypass
Road
Capitol
Landing Rd
EXIT
238
John
Tyler Ln
Olde
Towne Rd
Blayton
199
5
JCSA


Complex to
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Drive East
Fenton
Mill Rd
Bypass Road
Henry Street
Merrimac
Trl
Capitol
Landing Rd
John
Tyler Ln
EXIT
238
JCSA
199
5

Future

- **Phase II:**
  - **Complete aerial line shift to underground**
  - **Connect Merrimac Center/Regional Jail**
- **Fiber Optic Ring**
  - **Extensible to meet new construction requirements**
  - **Long life (an appreciating Capital Investment)**
  - **Adaptable to new initiatives**

James City County VIRGINIA Jamestown 1607

Q & A

June 26, 2012

Information Resources Management

RENAISSANCE PLANNING GROUP

455 Second NE, Suite 300 ● Charlottesville, VA 22902 ● Phone 434-296-2554 Fax 434-295-2543

M E M O R A N D U M

Date: September 17, 2010

To: Tammy Rosario, James City County Planning Department

Prepared By: Renaissance Planning Group, Inc:

Vlad Gavrilovic, AICP

Subject: Rural Planning Tools – Peer County Research Update

Background

As part of the James City County Comprehensive Plan Update in 2009, and as a follow up to the Rural Lands Study conducted in 2006 - 2007, Renaissance Planning Group has completed a brief overview of rural preservation and planning tools used by other Virginia localities in order to update which relevant rural planning tools are being used in peer localities and their recent experience with these tools. Herd Planning & Design also conducted a similar evaluation of rural preservation and planning tools as part of the 2003 Comprehensive Plan Update. The information from these prior studies was reviewed by the County's Comprehensive Plan Steering Committee and was considered as the Rural Lands section of the Comprehensive Plan was developed. The purpose of this study was not to duplicate any of the prior research but to provide an update and assessment of the tools being used in peer Virginia localities today and their potential relevance to James City County.

The following is a list of some of the most successful rural preservation and planning tools allowed by State Code for use by localities in Virginia, along with a chart illustrating which of these tools are in use by peer counties who, like James City County, have also experienced growth pressures in rural areas.

Typical Rural Preservation/Planning Tools in Use in Virginia:

- Use Value Assessment
- Agricultural and Forestal Districts
- Rural Cluster Provisions (assumed to be over 50% open space required for rural preservation)
- Large Lot Agricultural Zoning (exceeding 1 unit per 20 acres)
- Transfer of Development Rights (TDR)
- Purchase of Development Rights (PDR)
- Active Agricultural Marketing/Rural Economy Program (County Sponsored & Staffed)

The following table compares the use of these rural preservation tools across several representative Virginia counties:

Table 1. Comparison of Rural Preservation Tools in Select Virginia Localities

Virginia County	Rural Cluster (50%+ open space)	Large Lot Ag. Zoning (> 1 unit/per 20 ac.)	Ag. & Forestal Districts	Use Value Assessment	PDR	TDR	Active Ag. Marketing/ Economy Program[1]
Albemarle		n/a[2]	X	X	X		X
Chesterfield	X						
Clarke		n/a[3]	X	X	X		
Fauquier	X	X	X	X	X		X
Frederick	X		X	X	X	X	
Hanover	X		X	X			
Isle of Wight	X	X	X	X	X		X
Loudoun	X	X	X	X	X		X

[1] An active agricultural marketing program or agricultural economy program in this instance would include County sponsored programs to promote agriculture through a dedicated agricultural or rural economic development officer or ombudsman, a concerted effort to diversify uses in rural areas to support agriculture and open space uses and/or work by a County appointed/funded agricultural development advisory committee with the specific goal of promoting programs such a farm tours, local food marketing strategies and rural economic development etc. The communities with an X in the column all have a staff person who is a member of the Virginia Agricultural Development Officials (VADO) group, formally recognized by the Virginia Department of Agriculture and Consumer Services (VDACS) in August, 2010.

[2] Albemarle County allocates development rights based on parcel size. A parcel of record may be divided into up to 5 lots that are at least 2 acres in size, but less than 21 acres, in addition to as many 21-plus acre lots that can be created. Development density for the overall tract depends on total parcel size.

[3] Clarke County uses sliding scale zoning, the larger the parcel the more units are allowed by-right.

Rural Cluster provisions for several peer counties are summarized in more detail in the chart below:

Table 2. Comparison of Rural Cluster Provisions in Select Virginia Localities

Virginia County	Base Rural Density	Density Bonus for Cluster	Lot Size for Conventional Development	Lot size for Cluster Development	Min. Open Space Req. in Clusters	Mandatory or Voluntary Cluster	By-Right
Albemarle	1:21+[4]	None	2 to 21 acres	2 ac. or more	N/A	Voluntary	Yes, up to 20 lots in RA
Chesterfield[5]	1:5	None	2 ac.	0.28 ac.	50%	Voluntary	Need to rezone to RC
Clarke[6]	1:15+	None	2 ac. Max	2 ac. Max	N/A	Mandatory	Yes
Fauquier[7]	N/A	None	25 or 50 ac.	0.68 ac.	85%	Mandatory over 30 ac.	Yes
Frederick[8]	1:5	None	5 ac.	2 ac.	60%	Voluntary	Yes
Hanover[9]	1:10	1:6.3+	10 ac.	6.3 ac+	70%	Voluntary	Need to Rezone to RC
Isle of Wight[10]	1:40	Up to 1:5	40 ac.	varies	50-70%	Voluntary	Yes
Loudoun[11]	1:20 or 1:40	Up to 1:5 or Up to 1:15	20 or 40 ac.	.25 to .5+ ac.; Varies with utilities	70%	Voluntary	Yes

To ensure that James City County has the most current information available as it considers revisions to the Zoning and Subdivision Ordinances to implement the newly adopted Comprehensive Plan, Renaissance Planning Group contacted several peer communities for an update on rural planning efforts and trends. Renaissance Planning Group spoke to staff and/or reviewed recent planning department documents to assess changes since previous reports were prepared or to provide additional detail. The peer communities were selected because they

[4] As noted in the previous chart, Albemarle County uses a system of development rights based on parcel size in Rural Areas so there is no "base density." A parcel of record may be divided into up to 5 lots that are at least 2 acres in size, but less than 21 acres, in addition to as many 21-plus acre lots that can be created based on the size of the parcel.

[5] Densities and lot sizes reflect public utilities for cluster lots

[6] Incorporates sliding scale zoning with a maximum lot size (de facto clustering)

[7] Clustering is used in combination with sliding scale zoning

[8] Clustering is allowed only on parcels of 20 acres or more

[9] Cluster is required in order to obtain maximum density in rural areas; there is an A-1 cluster which provides no increase in density above the base of 1:10 and requires preservation of 80% open space.

[10] Clustering allows density bonuses – bonus varies with amount of open space preserved

[11] Per revised cluster revisions adopted in 2006 in conjunction with a countywide rural rezoning; The rural hamlet cluster option previously evaluated during the Rural Lands Study are now permitted only in residual A-3 areas.

have successful agricultural preservation programs, have experienced significant development pressures in their rural areas and/or are similar to James City County in that they have significant suburban development and a desire to protect the rural character in lesser developed parts of their communities. The counties include: Hanover, Frederick, Loudoun, Fauquier and Albemarle. Specific comments by County follow. General findings and conclusions are summarized after the specific comments by county.

Findings by County

Albemarle County[12]

- The primary tool for limiting development in rural areas in Albemarle County is the system of development rights adopted in 1980. The maximum number of development rights for any parcel, of any size is 5. Development rights are required to create a lot of less than 21 acres in size in the rural area zoning district. The total of all lots created on a parcel through development rights may not exceed 31 acres. Large parcels may use their development rights and create as many 21 acre lots as the parcel size may allow. Lots in the rural area may be as small as 2 acres, without clustering, if the lot is created by using a development right.

- The Rural Preservation Cluster option in Albemarle has not been widely used and not used at all in the last several years. The County has approved less than 20 clusters since its adoption in 1989. The minimum lot size in a cluster is 2 acres and a preservation lot of at least 40 acres in size is required. A proposal to require mandatory clustering based on conservation design principles and to require lot phasing in rural areas was considered by the County in 2007 but failed to receive support from a majority of the Board of Supervisors.

- Albemarle County has preserved over 7,200 acres since 2000 through ACE, its PDR program. Thirty-seven individual properties have been preserved, 70% of which are working farms. The program is funded through tax revenues and state grants. The County spent approximately $1 million per year to purchase development rights from 2000 to 2008; due to budget constraints, only $366,000 is set aside for the program in the next Fiscal Year.

- In 2009, Albemarle County required revalidation of properties in its Use Value Assessment program for the first time since the program's inception in 1973. Revalidation will now be required every two years. As a result of the revalidation initiative, the County experienced a substantial increase in applications for inclusion in the County's voluntary Agricultural and Forestal District program, presumably by landowners seeking to ensure that they remain eligible for Use Value Assessment in the future.

- Several zoning ordinance updates were completed this year to address non-residential uses in rural areas and to diversify uses in rural areas. These included updates to the County zoning provisions for farm stands, farm wineries and country stores. County staff reports that there is increasing interest in non-traditional agricultural activities and more value-added farm products. Although a full time rural ombudsman/agricultural development officer position was approved for the

[12] Comments based on a review of County documents and a September 13, 2010 telephone interview with Joan McDowell, Principal Planner for Rural Areas.

Planning Department in 2008 or 2009, the position was never funded due to budget constraints.

- Albemarle County has considered TDR initiatives over the past several years. However, there has not been sufficient Board support to go forward with a TDR program since the adoption of the new TDR legislation.

Frederick County[13]

- In 2010, Frederick County adopted the first TDR program in Virginia based on the State enabling legislation approved in 2006 and updated in 2009. James City County will be researching additional information on this program, so further research was not done as part of this study.

- Following completion of a new Comprehensive Plan in 2007, Frederick County initiated a Rural Areas study to assist in implementing the provisions of the new plan and to address growing concerns about residential development in its rural areas. A County appointed subcommittee worked with staff through part of 2008 and 2009 to develop a package of Rural Area policies that was formally adopted by the Frederick Board of Supervisors in April, 2009. The most significant recommendation in the study was to develop and adopt a TDR program.

- Based upon the recommendations of the Rural Areas study, Frederick County increased the amount of open space required in its Rural Preservation Tracts (clusters) from 40% to 60%. Frederick County's base agricultural zoning allows residential development of up to 1 unit per 5 acres with or without a cluster. The advantage to the cluster option is that there is the flexibility to create lots as small as 2 acres in size.

- Frederick County initiated a PDR program in 2008 funded through State Grant money. Although the County reports widespread interest in the program, future funding is uncertain due to budget constraints.

- The County reports growing interest in agricultural support activities and non-traditional agricultural land uses.

Loudoun County[14]

- In 2006, Loudoun County successfully rezoned a significant portion of the County to reduce residential development potential in areas planned for long term rural and agricultural use and in environmentally sensitive areas. Until 2006, the majority of the County's rural land was zoned A-3, one unit per 3 acres. The 2006 rezoning designated two new zoning district, AR-1, with a base density of 1 unit per 20 acres and AR-2 with a base density of 1 unit per 40 acres. This rezoning represented a compromise following a legal challenge to a rezoning initiated by the County in 2003, following an update of its General Plan.

[13] Comments based on a review of County documents.
[14] Comments based on a review of County Planning Documents and a telephone conference with Julie Pastor, Director of Planning, on September 10, 2010.

- As part of the rezoning in 2006, the County adopted a new set of cluster provisions based on conservation design principles. Unlike the County's former cluster options, the new cluster options allow a density bonus as an incentive to cluster. The AR-1 district permits up to 1 unit per 5 acres for a cluster development instead of the base density of 1 unit per 20 acres; the AR-1 district permits up to 1 unit per 15 acres for a cluster development instead of the base density of 1 unit per 40 acres. A minimum of 70% open space must be preserved under both cluster options.

- During the three years between 2003 and 2006, Loudoun County received a very large number of A-3 subdivision applications by property owners seeking to vest their density rights before the second (and successful) rezoning occurred. Few of these subdivisions have been constructed due to the economic slump. However, it is interesting to note that a number of the A-3 rural subdivisions had significant site constraints that lowered potential lot yields using conventional subdivision design. Some of these property owners have opted to withdraw their A-3 subdivision proposals and subdivide under the new cluster provisions allowed in the AR-1 and AR-2 districts since the cluster option can actually yield more lots than a conventional A-3 subdivision and produce a better design on a marginal site.

- Even though Loudoun's PDR program has not been funded since 2003, the County has recently experienced an increase in voluntary conservation easement donations from landowners seeking to take advantage of federal tax credits for land conservation. This may be a by-product of the downturn in the economy.

- Over the past 10 to 12 years, Loudoun County has made a strong effort to diversify and strengthen its rural and agricultural economy. Loudoun County has had an Agricultural Development Office since 1989 and in the late 1990s adopted a series of Zoning Ordinance amendments to allow a wider variety of land uses in rural districts aimed at maintaining rural character and viable agriculture. The County appears to have been successful in its efforts to maintain a strong rural economy even in the face of unprecedented development in its Urban Growth Areas. Between 1997 and 2007, agricultural sales increased 154%, from $26 million to $67.9 million. During this same decade, Loudoun's County population increased by over 60%, making is not only the fastest growing County in Virginia, but among the top 10 fastest growing counties in the U.S.

- Loudoun County officials have noted that rural residential landowners are not always receptive to non-residential uses or farm operations near their homes. Loudoun has experienced difficulty with neighbors who object to bed and breakfasts, rural retreats, private schools, and similar uses that may generate noise, traffic or other nuisances.

- Rural businesses and residential subdivisions may also have sewer and water needs that cannot be readily accommodated by conventional on-site utility systems. Loudoun has experienced a number of failing alternative on-site systems that are not properly maintained by rural landowners who are not aware of maintenance and usage requirements. Mandatory maintenance agreements and monitoring have been used to address this problem.

- Loudoun County has found that the use of communal wastewater systems to serve cluster developments in rural areas can create unforeseen problems. A certain scale of development may be required to achieve economies of scale for communal

systems to operate effectively and efficiently. A slow down in development or unsold lots can leave rural residents "stuck" with very high utility costs while waiting for their subdivision or cluster build out. The Plains of Raspberry Hamlet (near Leesburg) began development in the late 1990s and is now dependent on a temporary pump and haul system for sewer service until the development builds out enough to make the planned communal wastewater treatment system work efficiently.

- Loudoun is not considering use of TDRs in rural areas at this time but may consider their use on a limited basis for non-residential density transfers in certain locations in their Urban Growth Areas.

Hanover County[15]

- In 1996, the Hanover County Board of Supervisors revised the requirements of the Agricultural (A-1) zoning district to change the base development density from 1 unit/6.25 acres (4 lots for every 25 acres by right) to 1 unit/10 acres. To address the issue of lost density for agricultural property owners, two new zoning districts were created: an agricultural-residential district and a rural conservation district. Both offer low-density residential opportunities, but the rural conservation district (the RC) also requires preservation of no less than 70% of the property. While both districts allow the same density, only the RC provides for maintenance of viable agricultural land in addition to the clustering of homes on a small portion of the property.

- Since the creation of the Rural Conservation (RC) district in 1996, Hanover County has approved 37 Rural Conservation cluster applications (totaling 1208 lots) and preserved over 5,700 acres of rural land through clustering. The Rural Conservation Cluster provisions are based on design principles developed by Randall Arendt, a well known leader in the field of rural conservation. The design guidelines for Rural Conservation clusters emphasize protection of natural features and designing around natural land forms. County staff recommends the RC cluster for all parcels over 50 acres in size.

- There is a rural cluster option in the County's A-1 district which requires preservation of 80% of the parcel but at the base density of one unit per 10 acres. Rezoning from the A-1 district to the Rural Conservation district allows development of rural land at a density of 1 unit per 6.25 acres and requires that only 70% of the parcel be preserved in a conservation lot.

- Since 2000, approximately 60% percent of new residential development in Hanover County occurred in rural areas. As part of its 2007 Comprehensive Plan update, Hanover County expanded its Suburban Service Area (its UGA) to accommodate additional growth and to reduce development pressure in rural areas.

- Hanover County is not pursuing TDRs at this time.

[15] Comments based on review of County documents and telephone interviews with Lee Garman, Principal Planner and David Maloney, Deputy Director on September 8, 2010 and September 10, 2010, respectively.

Fauquier County[16]

- Fauquier County's most significant rural land initiative occurred in the 1980s when the County adopted a sliding scale zoning approach to density in its Agricultural Zoning Districts. As it is currently applied, development densities in the Rural Agricultural and Rural Conservation Zoning Districts are limited by parcel size. Allowable densities range from 1 lot per parcel on lots less than acre in size, to up to 10 lots for parcels 205 acres and above in size (plus one additional lot for each additional 50 acres).

- Nearly all rural subdivisions in the County are clusters the County requires that any parcel over 30 acres in size in its Rural Agricultural or Rural Conservation District must cluster and maintain 85% of the parcel in a preservation lot.

- The County has six sewer service districts (UGAs) and three village service districts that are the preferred area for residential development.

- In 2004, Fauquier adopted a Conservation Easement Incentive Overlay District (CEI) which allows residential density to be increased within certain Service Districts through the special exception process, in exchange for placing conservation easements on the targeted resource areas. This overlay district focuses on preservation of agricultural and historic resources, open space, parks and future transportation corridors. This district was intended to function similar to TDRs but it has not been used to date.

- Voluntary conservation easements programs are highly successful in Fauquier County. Over 92,000 acres of land has been place under easement through a variety of public and private programs sponsored by governmental entities such as the Virginia Outdoors Foundation and Fauquier County, and non-profits such as Piedmont Environmental Council and the Nature Conservancy.

[16] Comments based on review of County Documents and a telephone conference with Susan Eddy, Planner on September 17, 2010.

General Findings & Conclusions

1. All of the peer counties have well defined urban growth areas/service areas and comprehensive plan policies that seek to accommodate new development in these growth areas rather than in rural areas where agriculture and open space are the preferred land uses. This is a key finding and reinforces what is potentially the most important tool for rural preservation. In addition, most of the peer counties have strong policies and corresponding ordinances that draw clear distinctions between urban and rural areas, including land uses, residential densities and incentives for or against residential development.

2. Every county reported significant declines in rural residential development activity in the last 2 to 3 years presumably due to the nationwide economic downtown and collapse of the housing market.

3. Most counties, except for Frederick County, are taking a wait and see approach to TDRs or considering limited TDR programs to target specific areas.

4. Local government budget constraints have lead to cuts in funding for PDR initiatives. While PDR programs have been successful in several counties, they are necessarily subject to the vagaries of the economy. On the other hand, the economic downturn has also lessened the pressure for rural development.

5. An emerging trend in counties with cluster provisions seems to be toward increasing the required open space in clusters, and/or requiring conservation design standards and approaches to clustering. Although we did not research the reason for this, it is possibly due to the character of some clusters that have been built with insufficient open space around them yielding a more suburban than rural development character.

6. While it is useful to consider what measures other communities are taking to address development in rural areas, there is no one size fits all approach. Each peer county has combined various pieces of the rural planning toolkit to best fit its unique circumstances. The tools must be tailored to reflect local land use regulations, market forces, community preferences, landowner expectations, property values, fiscal constraints and political realities to be successful. This accounts for the wide variation in such things as base densities in rural and agricultural zoning districts, cluster provisions, and agricultural and forestal districts requirements found among the peer localities that were contacted. For example, in Hanover County, the maximum rural density is based roughly on the by-right development density permitted in rural areas prior to a Countywide rezoning which changed the by-right density in the rural zoning district to the current level of 1 unit per 10 acres. In general, the rural residential densities and overall policies have evolved in each county based on their particular history of balancing factors such as private property interests, protecting the rural economy and effectively stewarding public resources for infrastructure and public facilities.

7. Prior to the economic downturn, and even in some cases despite the downturn, there are signs of growth in the new rural agricultural economy, including areas such as value-added farming, wineries, rural resorts and tourism. Counties are increasingly looking to support this trend through a combination of supportive policy and zoning initiatives and agricultural development offices. This has potential dual benefits in contributing to the tax base as well as helping stabilize the rural economy and rural lands against pressures for conversion to residential subdivisions.

JAMES CITY COUNTY - RESIDENTIAL DEVELOPMENT IN RURAL LANDS
SUMMARY CONCEPTS

In summarizing the Steering Committee's Recommendations for the Rural Lands, the following basic concepts emerge as being central to the intent and direction of the Steering Committee's Recommendations.

1. **Implementing the Comprehensive Plan:**
   That the basic purpose of the Steering Committee's Recommendations is to implement the Comprehensive Plan Rural Land Use Standards.

2. **Respect for Property Rights:**
   That a key principle behind the Recommendations is respect for the individual rights of property owners in the Rural Lands, but that this should be distinguished from protecting the status quo of the current regulations.

3. **Non-Residential Development Policies are Critical:**
   That the County needs to address other issues that are critical to the future of the Rural Lands, such as Rural Economic Development, Natural Resource Protection and the Preservation Rural Character.

4. **Clustering of New Development:**
   That future residential development in the Rural Lands should, to a large extent, assume a cluster pattern.

5. **Density Incentives for Cluster Development:**
   That the primary method for achieving a clustered development pattern should be through density bonuses that encourage cluster development.

6. **Other Incentives for Cluster Development:**
   That the County should incorporate additional incentives, such as revised road and utility standards, to make cluster development more attractive than conventional development in the Rural Lands.

7. **Density Ratios:**
   That densities in the Rural Lands should be set based on a ratio of cluster to conventional development, so as to encourage cluster over conventional development.

8. **Design Standards:**
   That cluster development should be based on a series of design standards to achieve positive design benefits, including those listed in the Comprehensive Plan's Rural Land Development Standards.

9. **Incentives for Low Density Development:**
   That the County should incorporate incentives, such as revised development standards and a simplified review processes, so as to make very low density development more attractive than conventional development in the Rural Lands.

10. **Conventional Development for Small Parcels:**
That it is appropriate to differentiate between existing parcels of different sizes, and that smaller parcels may have fewer impacts and thus may be allowed to develop with conventional development.

11. **Amendments to Follow Soon:**
That the Steering Committee recommends that these ideas be implemented through amendments to County ordinances and development standards for the Rural Lands in the near term.

James City County Residential Development in Rural Lands Study

Steering Committee Recommendations

May 23, 2006

RENAISSANCE PLANNING GROUP
in association with Herd Planning & Design, Paradigm Design

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I. SUMMARY OF STEERING COMMITTEE RECOMMENDATIONS

BACKGROUND

The James City County Residential Development in Rural Lands Steering Committee has met since October 2005 to develop a series of recommendations for implementing the policies of the County's Comprehensive Plan relative to the Rural Lands in the County. During this period, the Steering Committee has met regularly twice each month, and has undertaken a series of additional research and educational efforts, in order to more fully understand the technical and qualitative issues of rural development trends and options in the County and throughout the State. These additional efforts have included:

- Two Public Workshops held on November 17, 2005 and January 12, 2006. The workshops were well advertised and well-attended sessions where the public was engaged with a series of exercises and small-group discussions to get input on alternative directions for the Rural Lands and optional strategies such as rural cluster development.

- A field trip to study alternative rural cluster and hamlet developments in Loudoun County, on January 13, 2006.

- Extensive technical analysis from the County's consultant team for this project, including analysis of alternate cluster development options, a theoretical buildout analysis for the Rural Lands, and utility and other impact considerations.

- Supplemental interviews, conducted by staff and consultants, with JCSA and Health Department officials on the impacts of alternative utility and well/septic policies for the rural areas.

The Steering Committee has incorporated the results of their research and discussions into the following series of General Recommendations for the Rural Lands. A more detailed summary of their findings on specific implementation options is included in the second part of this document, titled Matrix of Steering Committee Discussions.

COMPREHENSIVE PLAN FRAMEWORK

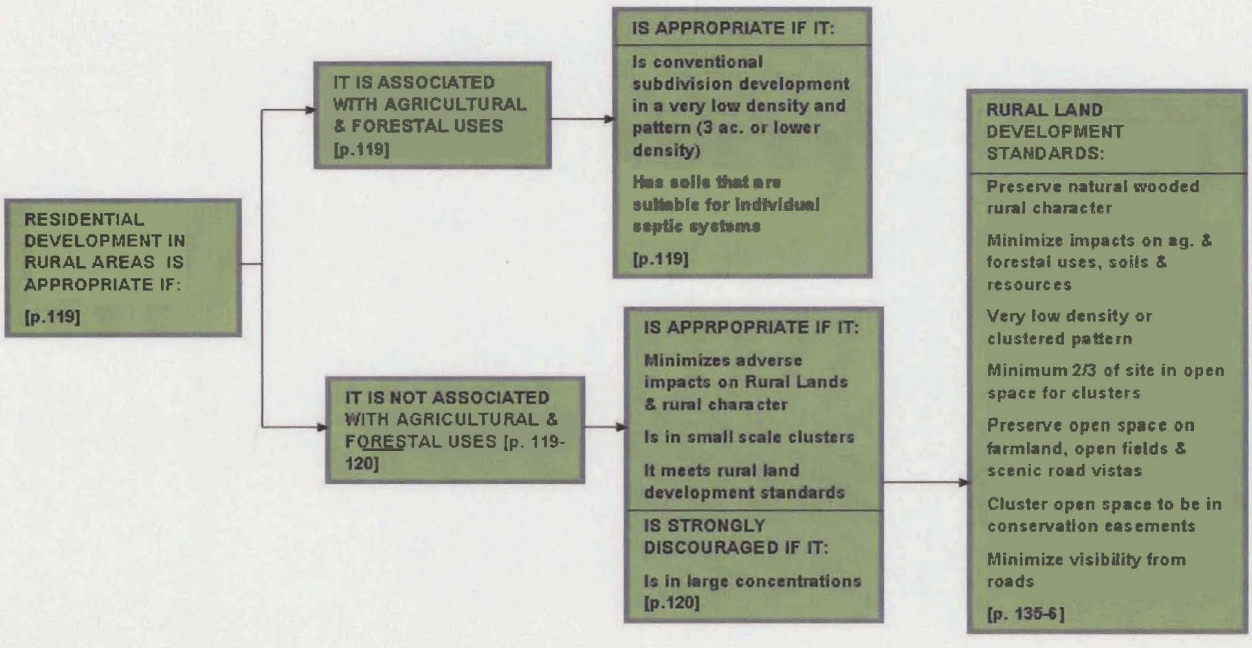
The 2003 James City County Comprehensive Plan outlines a set of policy objectives for the Rural Lands that have direct application to the work of the Steering Committee. In general, this study was intended to answer the overall question of how best to implement some of the Comprehensive Plan's Rural Lands policies. There are several policies in the Comprehensive Plan that have a direct bearing on this study because they deal with specific recommendations for the Rural Lands. These policies are discussed on pages 119-120, under "Rural Lands," and pages 135-136, under "Rural Development Standards." The chart below describes the general structure and content of the Comprehensive Plan's policies for the Rural Lands:

In addition, the results of a series of "Community Conversations" that were held in the County as part of the Comprehensive Plan process also address issues of development in the Rural Lands. In particular, the following summaries of responses were noted in the Comprehensive Plan:

The 2001 James City County Citizens Survey indicated that a substantial majority of County residents interviewed (80%) agree that there should be restrictions on the amount of land sold for residential and commercial development. Likewise, almost eight in ten (78%) of respondents agreed that land development in the County is happening too quickly. Nearly as many (74%) responded that it is more important to preserve farmland in the County than it is to have more development. An identical percentage of respondents (63% for both items) agree that is important to slow development even if it means increasing taxes. .A majority of citizens surveyed also thought that developers should always be required to pay a fee to offset public costs and supported reducing lot sizes to permanently preserve open space. Citizens supported a slower growth rate, the protection of rural lands and other sensitive areas, and more regional cooperation on the part of local government. Citizens suggested that growth should be managed in a smarter, more creative way that takes into account the existing character and resources of the community. In regards to the land use designation change applications, citizens generally supported preserving the County 's rural character and opposed expansion of the PSA.

[2001 James City County Comprehensive Plan, p. 118]

COMPREHENSIVE PLAN RECOMMENDATIONS FOR RESIDENTIAL DEVELOPMENT IN RURAL LANDS



SUMMARY of RECOMMENDATIONS

The following recommendations had generally strong support from the Steering Committee. They represent a broad set of policy recommendations for the County. More detailed implementation steps and optional provisions are also included. A full summary of all the options considered by the Steering Committee, along with additional considerations, is included in the accompanying Matrix of Steering Committee Discussions document.

BASIC CONCEPT OF RECOMMENDATIONS:

In order to implement the policies of the Comprehensive Plan for the Rural Lands, the general concept recommended by the Steering Committee includes the following basic elements:

1. For parcels 30 acres or greater in size, allow two development options – cluster and conventional. For the cluster development option, allow a density bonus of one and a half to two times greater density than conventional development.

   Absolute densities for these provisions were not specified by a consensus of the Steering Committee, other than the ratio of 1.5-2.0 to 1 described above; however, they considered several examples that would fit with this recommendation:

   - Cluster – 1 unit per 2.5 acres; Conventional – 1 unit per 5 acres (2:1 Ratio)
   - Cluster – 1 unit per 2.0 acres; Conventional – 1 unit per 4 acres (2:1 Ratio)
   - Cluster – 1 unit per 2.5 acres; Conventional – 1 unit per 3 acres (1.5:1 Ratio)

2. For parcels 30 acres or less, do not allow any cluster option and do not change any of the provisions of the A-1 and R-8 zones – i.e. continue to require a 3-acre minimum lot size.

A. DEVELOPMENT OPTIONS

Revise the A-1 and R-8 zones to establish a new rural zoning district with two basic development options, with corresponding standards and provisions for each option:

Option 1 — **A – Cluster Development (Parcels 30 acres & Greater)**

B– Conventional Development (Parcels 30 acres & Greater)

Option 2 — **Conventional Development (Parcels Smaller than 30 acres)**

Specific Implementation Recommendations:

Option 1 A– Cluster Development [Parcels 30 acres or greater]

1. This option should only be available for parcels in the Rural Lands that are 30 acres or greater in size.

2. Maximum density under this provision should be set so that it is 1.5 to 2 times greater than the density that is set for the Conventional development option.

3. Require the following standards for Cluster development:

   - A minimum of 55% open space should be protected under a permanent easement. The easement may be granted to the County and/or a bona-fide non-profit conservation or land protection organization.

   - The minimum lot size should be 1 acre, in order to generally allow the flexibility for on-site wells and septic systems if needed. However, lot size reductions to ¾ acre would be possible with communal well systems, and ½ acre with off-site septic drainfields. In these cases, the minimum percent of protected open space could be increased to 60%.

- Design standards should be required as a part of the ministerial review by staff in order to receive approval of the preliminary subdivision application. Standards should reflect those listed in the Comprehensive Plan, and those listed in the accompanying Rural Design Guidelines document.

- In general, design standards should be used to achieve positive benefits, such as preserving environmental features, protecting wooded or farmed lands, and their use as active farming or forestry operations, protecting rural viewsheds, and organizing the houses around an amenity or visual focal point such as a historic building, farm pond or "village green."

Option 1B – Conventional Development (Parcels 30 acres or greater)

1. This option should only be available for parcels in the Rural Lands that are 30 acres or greater in size.

2. Maximum density under this provision should be set so that it is 1.5 to 2 times lower than the density that is set for the Cluster development option.

Option 2 – Conventional Development (Parcels smaller than 30 acres)

1. This option should be available to all parcels in the Rural Lands that are smaller than 30 acres in size.

2. The minimum lot size for this option should be 3 acres.

3. All other provisions for this development option should be similar to the current provisions of the A-1 and R-8 zones.

Optional Provisions

- Consider making the approval of large scale Cluster Developments (for example, 150 lots or greater) a legislative rather than ministerial approval through a Special Use Permit or similar process.

- Consider adding other incentives for Cluster Development, such as waiving the requirements for communal wells for a certain number of units.

- Consider allowing the extension of water lines into the Rural Lands, where appropriate, provided that it encourages cluster development without increasing the overall rate or density of development in the Rural Lands.

B. INCENTIVES FOR VOLUNTARY CLUSTER

Incorporate incentives into the County's policies and regulations in order to make voluntary cluster development an attractive alternative to conventional (non-cluster) development

Specific Implementation Recommendations:

1. Revise the subdivision and zoning standards so that cluster developments of up to 20 lots may use individual wells on each lot, rather than being required to have a communal well and water system. Consider requiring a pond and dry hydrants in developments over 10 lots to assist in fire suppression for these subdivisions. Consider other water-saving features to mitigate impacts on the Chickahominy aquifer.

2. Permit private roads to serve cluster developments of up to 50-60 lots. Develop private road standards that will reduce development costs while allowing adequate width and construction materials for emergency and large vehicle access.

3. Permit off-site individual septic systems for lots within a cluster development. Off-

site drainfields would have to be within an easement, accessible to the homeowner for maintenance, and located on commonly owned land, rather on other private lots.

4. Eliminate requirements for maximum cul-de-sac lengths for cluster developments, in order to provide maximum flexibility for site design to preserve natural features. However, consider limiting the number of lots that can be accessed from a single cul-de-sac to 50-60 lots.

C. INCENTIVES FOR LOWER DENSITY

Incorporate incentives into the County's policies and regulations in order to make voluntary Lower Density Development an attractive alternative to conventional 3-acre development.

Specific Implementation Recommendations:

1. Revise the A-1 and R-8 zones to allow Lower Density Development (1 unit per 10-acres or lower) as a by-right development option that is eligible for the same incentives (listed above) that are available for cluster development.

2. Revise the subdivision and development review standards to permit Lower Density Development to obtain a simplified review process, such as being classified as "minor subdivisions".

3. In addition to the use of private roads, permit Lower Density Development to incorporate Private Access Easements so that common driveways can be used to serve up to 4 or more lots.

D. OTHER RURAL LANDS CRITICAL ISSUES

Take steps to address a series of critical issues in the Rural Lands, beyond the more narrow focus of residential development.

Specific Implementation Recommendations:

Rural economic development:

1. Support traditional rural businesses and industries.
2. Encourage compatible new rural industries such as value-added farming and timber industries.
3. Evaluate local initiatives and financial incentives to support competitiveness of traditional rural uses against conversion to residential subdivisions.

Natural resource protection:

1. Ensure that development protects key natural resources such as wetlands, groundwater and plant and animal habitats.
2. Link development standards and incentives to environmental protection measures.

Preserving rural character:

1. Maintain rural character of road corridors (Community Character Corridors).
2. Incorporate new standards for mitigating impacts of new development (traffic/ groundwater, etc.).
3. Ensure that major new commercial/industrial uses are located within the PSA.
4. Continue to strongly support the Purchase of Development Rights program in the Rural Lands.

II. MATRIX OF STEERING COMMITTEE DISCUSSIONS

BACKGROUND

The following Matrix of Steering Committee Discussions reflects the work of the James City County Residential Development in Rural Lands Steering Committee since October 2005.

This document is an accompaniment to the Summary of Steering Committee Recommendations, and is intended to reflect in greater detail the discussions, votes and issues considered by the Steering Committee in the course of the study. This Matrix reflects, as much as possible, the full scope of discussions among Steering Committee members, as well as the supplemental information provided by County staff and the consultant team. It is presented in the form of a series of options that were considered, ranging from 1.0 – No Change, to 6.0 – Miscellaneous. Not all of the options received support from the Steering Committee, as reflected in the voting summary under each option. They are included to give a more complete reflection of the range of opinions and information that was considered.

The final recommendations for this study are set forth in the Summary of Steering Committee Recommendations. They were developed in the final Steering Committee meetings, and represent a combination of many of the concepts that were discussed, as described in this Matrix.

The six options considered were as follows, with sub options under each:

1.0 NO CHANGE

2.0 DISCOURAGE CONVENTIONAL (3-Acre) LARGE LOT DEVELOPMENT

3.0 REDUCE THE BY RIGHT DENSITY FOR LARGE LOTS IN RURAL AREAS

4.0 ACCOMODATE CLUSTER DEVELOPMENT

5.0 ENCOURAGE VOLUNTARY LOWER DENSITY DEVELOPMENT

6.0 MISCELLANEOUS

1.0 NO CHANGE

1.1: Make no changes to A-1 and R-8 zoning districts.

Description:

Avoid making any changes to the current zoning requirements to influence the current trend of development in the Rural Lands.

Steering Committee Voting Summary:

Strongly Agree **2** Agree **2** Disagree **3** Strongly Disagree

Committee Discussion Highlights:

- General sentiment among most committee members that some change was necessary to these districts.
- Concern that no change would mean that rural areas would develop fairly rapidly in a large-lot sprawl pattern and that it would affect groundwater, environment, rural views and character.
- Recognition that the charge was to recommend ways to implement the Comp. Plan and propose positive changes to zoning and other areas to achieve Comp. Plan goals.
- Consider seeking view-shed properties to participate in PDR program.

Public Input from Workshops:

- Generally strong support from the public to make no changes to the current zoning in the Rural Lands.
- Concern that any proposed changes to the zoning would restrict property rights and lower property values.

Additional / Technical Considerations:

- Staff and consultants' analysis suggested that approximately 6,800 new homes could be added to the Rural Lands under existing zoning.
- Based on consultants' assessment and the experience of other localities within the Commonwealth, there was a general concern that the continuation of the conventional 3-acre large-lot development pattern over the entire rural area of the county would result in a predominantly suburban design quality and a loss of rural character and traditional rural land uses and quality of life.
- This approach would not implement the desire expressed in the Comprehensive Plan to "Discourage conventional large lot residential development in the rural areas." (p. 135, #3).
- The current rate of development and the development pattern would likely continue – both of these were issues of concern to citizens who participated in the 2001 Comprehensive Plan Survey.
- Staff agrees with the consultant's assessment.

2.0 DISCOURAGE CONVENTIONAL (3-Acre) LARGE LOT DEVELOPMENT

2.1: Increase lot frontage requirements for A-1 and R-8 lots.

Description:

Increase the minimum lot width at setback line for conventional 3-acre lots from 200 feet to 350 feet.

Steering Committee Voting Summary:

1 Strongly Agree **1** Agree **2** Disagree **3** Strongly Disagree

Committee Discussion Highlights:

- Wider lot frontage requirements were not discussed in any detail.
- Some committee members expressed sentiment that placing additional restrictions on existing conventional 3-acre lots would be unwarranted and would limit the public support for these recommendations.
- Concern from member who strongly disagreed that this would create shallow wide lots along road, creating impression of sprawl.
- After further discussion, the Steering Committee decided that setbacks and buffers were more important than lot widths in addressing the visual impression of sprawl.

Public Input from Workshops:

- Not specifically addressed in public comments.
- General public support for not restricting property rights in the rural areas – especially further restrictions on development density.

Additional / Technical Considerations:

- This will result in lots more square than rectangular, increase the spacing between homes on a roadway and potentially reduce the number of curb cuts and lots on rural roadways.
- Increasing the spacing between homes in new rural development could help preserve more open views and a more rural character for development along rural roadways.
- This provision could be considered along the whole rural area, or could be localized, for example along certain road frontages such as existing or future Community Character Corridors (not on internal streets).
- This provision could help maintain existing vegetation along rural roads and provide additional space to "sufficiently screen the non-agricultural and non-forestal uses to preserve open spaces and rural character and to minimize visual impacts from public roads" as recommended in the Comprehensive Plan (p. 135, #2).

2.0 DISCOURAGE CONVENTIONAL (3-Acre) LARGE LOT DEVELOPMENT

2.2: Reduce the number of lots that may be served by individual wells.

Description:

Reduce the number of lots that can be developed on individual wells in a minor conventional subdivision from 5 lots to 3 lots.

Steering Committee Voting Summary:

Strongly Agree Agree **3** Disagree **4** Strongly Disagree

Committee Discussion Highlights:

- Some strong concern that the owners/developers of small properties should not be restricted further – i.e. that any recommendations that strengthen the requirements for conventional 3-acre development should focus on larger developments.
- Comments that family subdivisions should be exempt from any provisions for strengthening A-1 and R-8 requirements.
- Comments that real estate trends and escalating land values are making the costs of communal wells less significant as a deterrent to development in the rural areas.
- Concern that increasing development on individual wells would seriously affect the Chickahominy aquifer, recommendation that new cluster development be on communal wells or on extensions of public water.
- Concern that this would also affect fire suppression in new rural developments – recommendation that new rural developments have water features included that could be used for fire suppression on-site.
- Commentary that the original intent of the County's communal well provisions was to allow for fire suppression in rural subdivisions – reducing the number of developments served by individual wells could help with fire suppression.

Public Input from Workshops:

- Strong concerns expressed that the current requirements for communal wells for subdivisions greater than 5 lots are too restrictive for property owners, and that they cause development to be too expensive in the rural areas.

Additional / Technical Considerations:

- Consultants provided analysis of the relative costs of development with communal wells, rather than individual wells. A general finding was that communal wells became cost-effective for developments of 20-30 lots and greater.
- JCSA officials expressed concern over increasing their management responsibilities if there continue to be more developments with communal wells in the rural areas – they are operationally difficult for JCSA.
- This issue is not specifically addressed in the Comprehensive Plan, although keeping the central well requirement and increasing the financial responsibility for central well systems are mentioned as ways of possibly strengthening requirements for 3-acre development (p. 141, 21.b.).
- From an environmental standpoint, communal wells may be better maintained and easier to protect than multiple individual wells.

2.0 DISCOURAGE CONVENTIONAL (3-Acre) LARGE LOT DEVELOPMENT

2.3: Limit the number of access points to existing roads.

Description:

Reduce the number of access points on existing rural roadways.

Steering Committee Voting Summary:

1 Strongly Agree **2** Agree **1** Disagree **3** Strongly Disagree

Committee Discussion Highlights:

- Not significantly addressed in the Committee's discussions.
- County can impose more stringent requirements if it is a Planned Unit Development, through the site review process.
- County should encourage shared entrances.

Public Input from Workshops:

- Not addressed in the public presentations or discussions.

Additional / Technical Considerations:

- VDOT generally regulates access permits onto public roadways in the Commonwealth.
- Potential for access management corridor overlays to be established on rural roads – however, concern that without significant traffic basis for such zoning implementation techniques, they could be open to legal challenge.
- This change would help implement the Comprehensive Plan Rural Land Use standard to preserve rural character in part by "minimizing the number of street and driveway intersections along the main road by providing common driveways and interconnection of developments" (p. 135, #1).
- A requirement reducing access points may result in shared driveways or access roads that would "force" houses in rural areas closer together, promoting de-facto clustering.
- Current requirement is for shared drives with 3 or more lots, with a waiver if lots are greater than 5 acres.
- Building a major subdivision requires constructing a new subdivision street currently.

2.0 DISCOURAGE CONVENTIONAL (3-Acre) LARGE LOT DEVELOPMENT

2.4: Strengthen the way that developable acreage is calculated for 3-acre conventional lots.

Description:

Modify the density provisions of A-1 and R-8 districts such that they are based on a density of 1 unit per 3 acres, rather than a 3-acre minimum lot size. Further, base the density calculation on net developable area, rather than gross site acreage – thus excluding wetlands and other un-developable lands from the density calculation.

Steering Committee Voting Summary:

1 Strongly Agree **1** Agree **2** Disagree **3** Strongly Disagree

Committee Discussion Highlights:

- Not significantly addressed in the Committee's discussions.
- Density could be determined as in some other zoning districts, with a maximum of 35% non developable land included in gross site acreage.
- Suggestion to subtract roadways from developable land consideration.
- Concern that this provision appears to restrict landowners.

Public Input from Workshops:

- Not addressed in the public presentations or discussions

Additional / Technical Considerations:

- Numerous localities in the Commonwealth have updated their zoning standards to address density, rather than, or in addition to, minimum lot size – this could slightly increase the development potential on some sites, if the area for roadways is not subtracted from the developable land.
- Some sites in wetland or other sensitive areas could have their development potential reduced – this would potentially target the density reductions to locations that are the most environmentally sensitive and would produce the most environmental benefit to the County.
- This provision would partially address the Rural Land Use Standard in the Comprehensive Plan that suggests that "Particular attention should be given to locating structures and uses outside of sensitive areas..." (p. 135, #1).
- Overall, the number of developable lots in the County may be reduced if sensitive areas are excluded from density calculations.

2.0 DISCOURAGE CONVENTIONAL (3-Acre) LARGE LOT DEVELOPMENT

2.5: Require all rural subdivisions to use Advanced Secondary Treatment for septic systems

Description:

Through changes in the County's subdivision or development standards, introduce new standards that require all new subdivisions that use septic systems in the A-1 and R-8 zones to use Advanced Secondary Treatment. Advanced Secondary Treatment is a form of mechanical pre-treatment, with trade names such as PuraFlo or AdvanTek, which treats the effluent before it goes into a conventional drain-field.

Steering Committee Voting Summary:

3 Strongly Agree **1** Agree **2** Disagree **1** Strongly Disagree

Committee Discussion Highlights:

- Recommended by some SC members as a more environmentally sensitive method of on-site wastewater disposal than conventional septic systems.
- Among those who disagree, they could support it as an optional incentive for a possible density bonus instead.
- Recommendation that it would only apply to subdivided property, not existing lots.
- Would provide significant amount of nitrogen removal and help reduce need for public sewer extension in Rural Lands due to environmental concerns.
- Could be offered as an incentive if development plan meets Rural Design Standards.

Public Input from Workshops:

- Not addressed in the public presentations or discussions.

Additional / Technical Considerations:

- The County's Health Department officials are generally supportive of Advanced Secondary Treatment as a wastewater treatment system that has State approval and provides relatively cleaner effluent and fewer drain-field problems over time.
- Advanced Secondary Treatment generally returns no nitrates into the soil, while conventional septic systems can return 60-70% of nitrates from effluent into the soil.
- These systems typically add about $10,000-20,000 per lot to development costs.
- These systems can offer much greater flexibility in locating development since they can often be used with more marginal soils than conventional septic systems; potentially increasing the overall development potential in the rural areas.
- County would need to adopt a manaement model to address monitoring and maintenance concerns.

3.0 REDUCE THE BY-RIGHT DENSITY FOR LARGE LOTS IN RURAL AREAS

3.1: Increase the minimum lot size for by-right development to 5, 10, 25 acres in the A-1 and R-8 Zones

Description:

Modify the provisions of A-1 and R-8 districts so that the by-right density for conventional large lots is reduced from 3-acre lots to 5, 10 or 25 acres.

Steering Committee Voting Summary:

1 Strongly Agree **1** Agree Disagree **5** Strongly Disagree

Committee Discussion Highlights:

- Mixed support, both for some type of (unspecified) density reduction, and for no change to the existing by-right density of one unit per 3 acres
- Some concern expressed that without a reduction in the base density in rural lands, that any potential density bonuses for cluster development would not have enough incentive value to be adopted by landowners
- Member who strongly agrees suggests two standards – one for agricultural lands, one for other lands
- Concerns that this provision would cause harm to existing landowners.

Public Input from Workshops:

- Generally strong support from the public to make no changes to the current zoning in the Rural Lands
- Concern that any proposed reductions in the currently allowed density would lower property values

Additional / Technical Considerations:

- Several localities in the Commonwealth have adopted large lot by-right zoning ranging from 20 acres (Northampton County) to 25 acres (Clark County) to 50 acres (Fauquier County), as a method of preserving farmland and rural open space.
- There have been consistent discussions among many rural localities that lot sizes of 2-5 acres do not preserve opportunities for farming or general rural character in an area. These lot sizes have been called "too big to mow and too small to plow." Therefore, some of these localities have developed much lower base densities, and some have also included density bonuses for cluster development.
- Any increase to minimum lot size would reduce the number of lots available in rural areas.
- Even if the minimum lot size is increased, there may be future development pressure to further subdivide these lots into smaller lots because there are no easements on the land.
- If the minimum lot size were set at 20 acres or above, the option would implement one of the preferred development patterns identified in the Comprehensive Plan for rural areas – very low density development (p. 135, #3).

4.0 ACCOMODATE CLUSTER DEVELOPMENT

4.1: Permit Cluster Development By-Right in the A-1 and R-8 Zones

Description:

Modify the provisions of A-1 and R-8 districts so that clustered residential development is permitted as a by-right use – the density of one unit per 3 acres would not be changed.

Steering Committee Voting Summary:

5 Strongly Agree 2 Agree Disagree Strongly Disagree

Committee Discussion Highlights:

- General support for a voluntary cluster provision.
- Discussed concerns over whether incentives would be sufficient to actually bring about a clustered development pattern in the rural areas over time.
- Discussed concerns that if incentives were too great, it could significantly accelerate the pace of development of the rural lands.
- Incentives that should be included for encouraging cluster development include use of private road standards and expedited review.
- Should be combined with County assistance in laying out development so that the option is easier to use by landowners / developers.

Public Input from Workshops:

- Generally strong support from the public to allow voluntary cluster development in the rural areas.
- Discussed as a positive change because it expands rural landowner rights.

Additional / Technical Considerations:

- The experience of some counties (in particular Loudoun and Fauquier) has shown that voluntary cluster provisions with limited incentives has not fundamentally changed the course of rural development – some clusters have been built, but they are a small minority of all subdivisions built in those jurisdictions.
- Consultants' analysis of sample cluster development on sites in James City County indicates that cluster development at one unit per three acres does not effectively preserve land for farming –with viewsheds still generally dominated by suburban-style housing developments.
- Incentives such as increasing the number of individual wells on cluster developments could significantly increase the pace of small rural subdivision development in the rural areas – however, it may not be sufficient incentive to encourage large landholdings or assemblages to develop as clusters.
- This modification would potentially minimize entrances on local roads and provide opportunities to cluster development away from sensitive natural areas – both Rural Land Use Standards outlined in the Comprehensive Plan.
- Cluster development is identified as a preferred development pattern for rural land in the Comprehensive Plan.

4.0 ACCOMODATE CLUSTER DEVELOPMENT

4.2: Permit increased numbers of houses on individual wells as an incentive for cluster development

Description:

Modify the current zoning/subdivision requirements in the A-1 and R-8 zones to allow up to 20 lots (the approximate size of a cluster hamlet) to be built with individual wells (instead of requiring a communal well). These lots would be developed under a cluster provision, assuming that such a provision be added as a by-right use in these zones.

Steering Committee Voting Summary:

1 Strongly Agree **4** Agree **2** Disagree Strongly Disagree

Committee Discussion Highlights:

- Some committee members expressed concern that this incentive would stress the Chickahominy-Piney Point Aquifer, by increasing the number of private wells, which draw water only from this resource.
- General favorable remarks on using this provision as an incentive for cluster development – no recommendations as to the specific number of lots to allow with individual wells.
- Some concern that, as land prices rose, this would become less of an incentive for cluster development, since the costs of installing communal wells would be offset by higher lot prices in general.
- Concern that this would also affect fire suppression in new rural developments – recommendation that new rural developments are required to have water features included that could be used for fire suppression on-site
- Communal wells are more reliable for fire suppression.

Public Input from Workshops:

- Not specifically addressed as a proposal in the public workshops.
- The existing requirements for communal wells were criticized in the workshops.

Additional / Technical Considerations:

- JCSA officials expressed concern over increasing their management responsibilities if there continue to be more developments with communal wells in the rural areas – they are operationally difficult for JCSA to administer.
- This may provide additional incentives for clustering which is identified in the Comprehensive Plan as a preferred development pattern for rural areas.
- A more typical development incentive for rural clusters in other communities is to allow the use of communal water systems without fire suppression.

4.0 ACCOMODATE CLUSTER DEVELOPMENT

4.3: Permit Off-Site individual septic drain-fields for cluster developments

Description:

Develop a new cluster ordinance for the rural areas that would permit individual drain-fields to be off-site (within a specified distance from the lot), within a commonly-owned area and covered under an easement to the lot owner.

Steering Committee Voting Summary:

2 Strongly Agree **4** Agree Disagree Strongly Disagree **1** No Opinion

Committee Discussion Highlights:

- Committee members expressed support for this provision, based on seeing cluster projects using this provision in Loudoun County.
- Some discussion of County's negative experiences with off-site drain-fields – although this was not in a commonly-owned area but on an adjacent property-owner's lot.

Public Input from Workshops:

- Not specifically addressed as a proposal in the public workshops.

Additional / Technical Considerations:

JCSA and VDH officials did not specifically express concern over this approach.

- Loudoun County, which allows this provision in their Rural Hamlet ordinance, has said that homeowner education is particularly important in these cases, so that homeowners clearly understand where their septic fields are located.
  The use of off-site drain-fields may provide more flexibility in cluster design.
- Allowing off-site drain-fields may lead to clustering drain-fields on good soils, potentially increasing the development potential of marginal sites.
- County would need to adopt a management model to address monitoring and maintenance.

4.0 ACCOMODATE CLUSTER DEVELOPMENT

4.4: Require Mandatory Cluster development for all Subdivisions in the A-1 and R-8 zones

Description:

Modify the provisions of A-1 and R-8 districts so that clustered residential development is required – the density of one unit per 3 acres would not be changed. The simplest way to establish this provision is to impose a maximum lot size of one acre in these zones and require that the remaining land be placed under a permanent open space easement.

Steering Committee Voting Summary:

1 Strongly Agree Agree **3** Disagree **3** Strongly Disagree

Committee Discussion Highlights:

- Generally a lack of support for making clusters mandatory in the rural areas
- Some committee members suggested a combination of mandatory clusters for larger parcels, with voluntary clusters for smaller parcels in the rural area
- Suggestion to allow 8-10 acre lots with no restrictions and allow up to five 3 acre lots per parent parcel with individual wells and advanced septic.
- Preference for voluntary clusters for small parcels and larger minimum lot sizes on clusters of 2-2.5 acres.
- Concern that this provision "punishes" existing landowners.

Public Input from Workshops:

- Strong negative reaction to any proposal for mandatory clusters in the workshops.

Additional / Technical Considerations:

- The experience of Loudoun County, which has cluster provisions under a 3-acre based density, has shown that clustering development with this density does not preserve the same type of rural landscape that existed previously in the County. While preserving significant open space at their peripheries, the view-sheds are still dominated by suburban-style housing developments.
- Consultants' analysis of sample cluster development on sites in James City County indicates that cluster development at one unit per three acres does not effectively preserve land for farming – although it does preserve rural open space in rural areas, the density generally is inconsistent with preserving rural character over the whole landscape.
- Clark County, which has a de-facto mandatory cluster, uses a two-acre maximum lot size within an overall by-right density of one unit per 25 acres.
- Mandatory clustering would implement one of the preferred development patterns for rural areas as identified in the Comprehensive Plan.
- Clustering would require that open space is permanently maintained.

4.0 ACCOMODATE CLUSTER DEVELOPMENT

4.5: Allow Density Bonuses as an incentive for Cluster Development

Description:

Allow Cluster provisions in the A-1 and R-8 zones that would allow a density increase to one unit per two acres if cluster development was used under a Special Use Permit. Alternately, a new zoning district could be created that would allow the one unit-per-2-acre density only if a cluster development pattern was used. Landowners would have to apply for re-zonings to the new zone.

Steering Committee Voting Summary:

2 Strongly Agree **4** Agree Disagree **1** Strongly Disagree

Committee Discussion Highlights:

- Intermittent support for using density bonuses as an incentive for cluster development – other suggestions included a more limited incentive of one-unit-per 2.5 acre density.
- Some committee members expressed concern that density bonuses would increase the overall rate of rural subdivision development.
- Suggestion to consider sliding scale zoning based on parcel size (larger parcels = higher density) as part of cluster ordinance.

Public Input from Workshops:

- Some public support for using density bonuses as a cluster incentive in the workshops.
- Some members of the public also expressed concern about increasing the rate of rural subdivision development.
- Some public comments against any increase in density, due to the current or future impacts on traffic, schools, the environment and overall rural quality of life

Additional / Technical Considerations:

- Consultants' analysis of sample cluster development on sites in James City County indicates that cluster development at one unit per two acres does not preserve sufficient open space to maintain open rural view-sheds, visual character and rural uses on remaining open space.
- There would be an increase in the theoretical development potential in rural areas.
- The special exception or rezoning process would provide means for the County to potentially mitigate transportation or other impacts of development in rural areas through conditions or development proffers.

5.0 ENCOURAGE VOLUNTARY LOWER DENSITY DEVELOPMENT

5.1: Incorporate Incentives for Development at Densities of 1 Unit per 10 Acres or Lower

Description:

Use the same set of incentives as those for Cluster Development to encourage landowners to develop at densities of 1 unit per 10 acres or lower. Incentives (see 4.2 and 4.3 above) would include increased number of lots with individual wells and allowing off-site septic drain-fields. Additional incentives could be to allow Lower Density Developments to use a simplified review process, such as being classified as minor subdivisions, and to allow private roads and private access easements.

Steering Committee Voting Summary:

4 Strongly Agree 1 Agree 1 Disagree 1 Strongly Disagree

Committee Discussion Highlights:

- General support for incentives to encourage voluntary Lower Density Development.
- Discussed concerns over whether incentives would be sufficient to actually bring about a lower density development pattern in the rural areas over time.
- Discussed concerns that if incentives were too great, it could significantly accelerate the pace of development of the rural lands, which would not be consistent with the direction of the Comprehensive Plan for the rural lands.
- Concern from member who felt that 1 du/10 ac. would require long pipe runs for off-site septic drain-fields, making it unworkable.
- Concern about large number of individual wells impacting aquifer.
- Recommendation that off-site drain-fields are not necessary with large lot sizes.
- Suggestion to allow individual wells on lots greater that 8 or 10 acres.
- Concern that increase in cost to landowners is unwarranted.

Public Input from Workshops:

- Some support for increasing the density in Rural Lands – or for going back to the earlier density provisions, before the County's last rezoning.
- Generally strong support from the public to provide incentives for alternative but voluntary development approaches in the rural areas.

Additional / Technical Considerations:

- Private roads and private access easements (e.g. common driveways) could reduce development costs and provide design flexibility – however, they would need common maintenance agreements to be required in order to ensure maintenance over time.
- Incentives such as increasing the number of individual wells on Lower Density Developments could significantly increase the pace of rural subdivision development in the rural areas – however, it may not be sufficient incentive to encourage large landholdings or assemblages to develop at lower densities.

6.0 MISCELLANEOUS

6.1: Increase the allowable density in the A-1 and R-8 Zones

Description:

Modify the provisions of A-1 and R-8 districts so that the by-right density for conventional large lots is increased from 1 dwelling unit per 3 acres to 1 dwelling unit per 1 or 2 acres.

Steering Committee Voting Summary:

Strongly Agree Agree **3** Disagree **4** Strongly Disagree

Committee Discussion Highlights:

- Not supported by the Steering Committee.
- Briefly discussed as a recommendation that was not consistent with the direction of the Comprehensive Plan for the rural areas.
- Concern that there would be considerable impacts on County services.

Public Input from Workshops:

- Some support for increasing the density in Rural Lands – or for going back to the earlier density provisions, before the County's last rezoning for rural areas.
- Some public comments against any increase in density, due to the current or future impacts on traffic, schools, the environment and overall rural quality of life.

Additional / Technical Considerations:

- The recent development trend in James City County is toward an increasing number of by-right subdivisions in the rural areas. Increasing the density of rural zoning could accelerate the pace of rural development overall.
- While the study did not look at fiscal, traffic or environmental impacts, it is reasonable to anticipate increased severity of impacts in these areas if densities are increased in the Rural Lands.
- The consultants are not aware of any locality in the State upzoning rural areas unless central utility extensions are planned or available.
- This option would not implement the Comprehensive plan goals for rural areas.

6.0 MISCELLANEOUS

6.2: Limited Extensions to the PSA to accommodate Cluster Development

Description:

Consider extending the Primary Service Area into the Rural Lands, and use the extensions as an opportunity to encourage very low-density development as a temporary use, and cluster development as a long-term use.

Steering Committee Voting Summary:

3 Strongly Agree **1** Agree **1** Disagree **2** Strongly Disagree

Committee Discussion Highlights:

- Supported by some Steering Committee members, although there was recognition that the wording of this item did not match the original committee member's suggestion.
- A specific recommendation was made to extend the PSA and allow only low density (5-acre lots) development in those areas until the utilities were constructed.
- General recommendation from the Steering Committee that the question of extending the PSA was beyond the scope of this study, and that the County should consider it as a separate issue.
- Suggestion to extend water lines outside PSA without extending PSA itself.

Public Input from Workshops:

- Some support for extending the PSA into rural areas, although few specifics were discussed as to location or timing.
- Some public comments against any increase in development in the rural portion of the County, due to the current or future impacts on traffic, schools, the environment and overall rural quality of life.

Additional / Technical Considerations:

- Logical phasing of utility extensions and limiting rezonings until the extensions are made are practices that are generally supported by practice and precedent in the Commonwealth (Henrico County, Virginia Beach, Chesapeake, etc.), though typically these are not outside their growth boundaries.
- While the study did not look at fiscal, traffic or environmental impacts, it is reasonable to anticipate increased severity of impacts in these areas if densities are increased in the Rural Lands.
- This option would not be consistent with the Comprehensive Plan policies for rural lands or with citizen concerns expressed during the comprehensive plan process to maintain the rural character of the County.
- Would significantly accelerate the pace of rural development overall.
- Utility extensions to serve relatively low density development, even in clusters, may not be cost effective or efficient.

6.0 MISCELLANEOUS

6.3: Provide Exemptions from Requirements for Various Categories of Development

Description:

For any mandatory (rather than voluntary) provisions, such as mandatory clustering or lowered density, allow for exceptions for categories such as family subdivisions, existing platted 3-acre conventional lots, and existing parcels under 10-20 acres.

Steering Committee Voting Summary:

1 Strongly Agree 3 Agree 3 Disagree Strongly Disagree

Committee Discussion Highlights:

- Intermittently discussed by the Committee, relative to certain mandatory provisions, as a way to exempt small property owners and farmers who wanted to pass land on to family members.
- Recommendations centered on the relatively low impact that development of small parcels would have on the rural lands (compared to large tracts) and the need to provide relief for the small farmer and rural landowner.
- Concern voiced that exceptions could become the rule.
- Feeling that this may need to be a concession in order to implement other, more critical recommendations.
- Recommendation to not make anything mandatory.

Public Input from Workshops:

- Not specifically discussed in the workshops – however, there were numerous comments on the pressing needs of small landowners to use the economic potential of their lands as a supplement for limited incomes.

Additional / Technical Considerations:

- Staff has prepared an analysis of the locations and number of small parcels in the County.
- Family subdivision provisions are strictly defined and protected under State Code.
- This may increase the development potential in the Rural Lands.
- The County would need to ensure that large parcels are not subdivided into smaller ones as a means of circumventing the County's land use goals.

JAMES CITY COUNTY - RESIDENTIAL DEVELOPMENT IN RURAL LANDS

TECHNICAL MEMORANDUM-
SUMMARY OF POTENTIAL IMPACTS OF RECOMMENDATIONS

May 9, 2006

JAMES CITY COUNTY - RESIDENTIAL DEVELOPMENT IN RURAL LANDS
DRAFT SUMMARY of
POTENTIAL IMPACTS OF RECOMMENDATIONS

BACKGROUND:

The following Summary of Potential Impacts is intended to give some suggestion of potential impacts resulting from the implementation of the recommendations of the James City County Residential Development in Rural Lands Steering Committee in March 2006.

In this memorandum, the consultant team offers general ideas which may help to provide a context for evaluating possible environmental, visual, traffic, fiscal and other impacts that could potentially result from these recommendations for Rural Lands. It is important to note that accurate impacts cannot be measured at this point, due to the general nature of the recommendations and the limitations of available data. Instead, this memorandum gives a general framework for further detailed study of key impacts, and notes the consultant team's observations of important impact considerations, based on other professional studies and experiences in other similar communities throughout Virginia.

POTENTIAL IMPACTS:

Housing Markets and Affordability

One of the primary aspects of the recommendations for Rural Lands is to promote and encourage cluster development. While the absolute densities for either conventional or cluster development were not specified in the recommendations, a few general observations can be made about the impacts of a potentially increasing trend toward cluster development in James City County.

Cluster development relies heavily on building orientation and buffering with natural plant materials to achieve levels of privacy and "personal space" comparable to large lot and estate lot development. Additionally, cluster development creates common, natural open space that can serve as habitat for wildlife and areas of recharge for groundwater systems. Several studies conducted throughout the nation indicate that there may be notable enhancements to property values associated with residential development in close proximity to natural open space areas. [1]

1 "Does Land Conservation Pay? Determining the Fiscal Implications of Preserving Open Land," Lincoln Institute of Land Policy, Resource Manual, 1994.

The National Association of Home Builders first documented the economic benefits of clustering in 1976. In evaluating this tool for encouraging development and land conservation at minimal public cost, the association found that a sample 472-unit cluster cost 34% less to develop than a conventional grid subdivision.[2] These costs vary from site to site, but follow the general principle that well-designed clusters - both high density clusters in community centers and low density clusters of detached units in rural areas - consume less land, require shorter roads, and fit in better with traditional community densities than do the suburban grids and rural sprawl that are spreading across the landscape.

Thus, the effect on market values of rural lots resulting from cluster development could be positive. However, the increased value resulting from being adjacent to protected open space may be partly offset by a reduction in land values if lot sizes are significantly smaller. In addition, if there is a market value resulting from the rural scenic character of an area, then a development pattern – such as rural clustering – that preserves the rural character can be said to enhance or protect that market value compared to a development pattern –such as rural sprawl – that would degrade the scenic rural character of an area.

It is impossible to determine, without detailed study of actual cases, whether the net effect on property values from cluster development would be positive or not. However, it should be noted that there are counterbalancing market influences with cluster development, and that the impact cannot be said to be categorically in one direction or another.

Community Facilities and Services

One of the most important factors in judging impacts on community services for the Rural Lands in the County has to do with gradual transition of the area from one with a basically rural character and lifestyle, to one that is more suburban. Consistently in rural communities, rural residents have traditionally accepted lower levels of public services, including private water and sewer, and unpaved roads. These lower levels of public services have been balanced by other quality of life factors, such as lower traffic, cleaner air and water, and more open space and scenic views. The higher densities and visual impacts resulting from rural sprawl development encourage new residents with typically higher expectations to move to exurban and rural areas. Local governments then face pressure to provide more urban services, such as parks, libraries, recreational areas, etc. to low density sites despite higher service costs.

In James City County's Rural Lands, this issue of higher expectations for public services is a potential concern, regardless of the pattern of development – whether clustered or conventional – if the density in rural areas approaches the buildout allowed by current zoning. In general, the single greatest factor that determines whether an area has a rural character and lifestyle is the density of population in the area. As the Rural Lands approach a buildout density of subdivisions at one unit per 3 acres or greater, they may well transition toward a less rural character, and a more quasi-suburban social and cultural context. If this transition is matched by higher expectations of public services from the new population, it will be very difficult for the County to meet these expectations, without incurring much higher delivery costs due to the dispersed

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2 Thomas, Holly L. February 1991. "The Economic Benefits of Land Conservation", Technical Memo of the Dutchess County Planning Department, Dutchess County, New York.

pattern of development.

In addition to negative impacts of sprawling residential development on property taxes, such development also may have unwanted secondary impacts on the community. For example, increased pollution, traffic, buildings and less open land may diminish a community's visual character and decrease residents' quality of life. Although not measured in typical studies, there are financial and economic costs to the community associated with these secondary impacts. These findings complement normal "Cost of Community Services" study findings and provide an important perspective on the long-term effects of growth and development. Over time, localities with more development and population tend to have higher costs. Therefore, plans to control growth may limit both public spending and future increases to tax bills.

Fiscal Impacts

Poorly planned, dispersed growth, or "sprawl," is increasingly recognized as both economically and environmentally costly to communities. U.S. Census data show that urban areas are losing population, while suburban and rural areas are increasing in population.

Appropriate development and sound planning can protect assets, including the scenic character and vistas of rural areas and the open space provided by farmland, while still allowing for growth. Actual costs and benefits of sprawling versus clustered development patterns are difficult to generalize for James City County without more detailed analysis and actual case studies.

However, there are extensive studies prepared for communities throughout the nation, and in Virginia, that indicate that sprawling residential patterns of development are not bringing fiscal benefits to localities. For example, a recent study filed with the Loudoun Planning Commission shows that an average house in one of the currently proposed eastern development projects—Greenvest's 15,000 homes in Dulles South—would generate an annual deficit to Loudoun County of $1,200 per home. Rapid residential growth that has contributed to annual tax increases in Loudoun averaging more than 16 percent, according to the report.[3] Furthermore, in its study of Loudoun County, the American Farmland Trust found that net public costs were approximately three times higher ($2,200 per dwelling) where the density was one unit per five acres, than where the density was 4.5 units per acre ($700 per dwelling).[4]

Of course, the above observations hold true whether development on individual sites is done in clustered or conventional patterns. However, a few general observations can be made concerning potential fiscal impacts resulting from the recommendations for James City County's Rural Lands:

- The single greatest fiscal impact of residential development in the county would likely come from the need for additional school facilities resulting from an increase in school-age children. There are no definitive studies on the differential impacts on school

3 Smythe, R. (1986), *Density-related Public Costs*, American Farmland Trust, Washington DC.
4 Brabec, Elizabeth. 1992. "On the Value of Open Spaces." Scenic America: Technical Information Series, v. 1 (2).

population between cluster and conventional development. Therefore, the recommendation for reorienting development patterns toward clustering would probably not affect school impacts over conventional development.

If, however, the result of the Recommendations, was to increase the density of development or the rate of growth in the County's Rural Lands, then there could be significant fiscal impacts on County resulting from the increase in school populations in rural areas, and the potential need to provide school facilities in these areas.

- If the overall density and growth rate in the Rural Lands is not proposed to be changed by these Recommendations, then some fiscal impact resulting may result from the incentives that allow a greater number of lots to be built without common wells. This would produce some decrease in the operating costs that the JCSA would have to bear for the additional development. However, the JCSA has typically accommodated changes in its operating costs by adjusting its service fees.

  It should be pointed out that this incentive could also be a powerful stimulus to the overall growth rate in the Rural Lands in and of itself. Therefore, any fiscal savings could easily be offset by an overall faster rate of development, and corresponding needs for additional services from the County.

- An even greater stimulus for growth would be the extension of utilities into the Rural Lands, and this could potentially have greater fiscal impacts, as noted above.

It should also be noted that development options cannot be judged solely on their gross impacts to the tax base. The County must also consider the net economic impacts. Even in cases where development shows that it is increasing the tax base, there should be an assurance that the accompanying demand for services is not greater than the additional revenues. And while some development can benefit public budgets, unplanned residential development can lead to an even greater demand for services. By achieving a healthy balance of land uses, those requiring large amounts of public services can be supported by those requiring less.

Rural Transportation Systems

The potential traffic impacts resulting from the Recommendations for Rural Lands are even more difficult to assess than the potential fiscal impacts. In general, a "density neutral" scheme that would encourage clustering without increasing densities in the Rural Lands could be said to have no change in traffic impacts compared to conventional development (the "no change" option). However, a few observations could still be made about traffic impacts resulting from the Recommendations:

1. Clustering with effective design standards could reduce the number of access points on rural highways. For example, a cluster layout with all the lots fronting onto internal roads would have far fewer highway access points than conventional development that fronts lots onto existing roadways.

2. Well-planned cluster development could also help improve vehicle safety in the Rural

Lands. For example fewer entrances on existing highways would reduce vehicle conflicts on these typically high-speed corridors. In addition, school bus stops could be located more frequently on low-speed neighborhood roads within clusters, and less frequently on high-speed rural highways.

3. If the Recommendations ultimately result in overall lower densities in the Rural Lands, potential traffic benefits could result – either from the lower overall number of vehicle trips in the area if by-right densities are reduced, or from the potential for developer-initiated road improvements resulting from proffers for rezonings to higher densities.

Environmental

Sprawled land use patterns increase the amount of land developed per capita, which reduces the land that is "biologically active" - land such as farms, forest, and wetlands near population centers. While development patterns such as those found in James City County's Rural Lands (conventional development on 3-acre lots), provide contained areas of open space within each lot, they do not provide the type of larger, connected open space that is most conducive to protecting natural resources such as groundwater, wetlands and wild habitats. Larger areas of open space, whether in farmland, forest or maintained public lands, provide a variety of external benefits, including wildlife habitat, improved air and water quality, biological diversity, and cultural benefits of a traditional rural landscape.

These benefits exist in addition to benefits to the land owner, and are not always reflected in the land's market value because they are enjoyed by the community as a whole. Some result from the direct contribution that an ecological system makes towards the value of market goods, such as the role of stream environments towards fishery production, or the replacement cost of providing fresh water to a community if an aquifer is contaminated. Other values are reflected in the tendency of protected open space to increase adjacent real estate values, the benefits of recreation and tourism activities, and in family legacy and bequest values.

To the extent that the Recommendations for Rural Lands can be used to preserve more open lands, environmental benefits will accrue to County residents as a whole. Open lands, whether they result from large lot low-density conventional development, or from cluster development, provide habitat for wildlife, filter drinking water, maintain base flows of aquifers, wetlands, and rivers, help reduce flooding, and offset carbon emissions into the atmosphere.

Open lands including farmland also play important roles in protecting water resources and preventing floods. In contrast to agricultural and open land, pavement and rooftops are impervious to water and collect pollutants from cars and other sources. Rainwater falling on these impervious surfaces mixes with contaminants and runs quickly into nearby waterways or flood prone areas. Studies show that when more than 10% of a watershed is impervious, then the water quality is 'at risk'. In contrast, soils and vegetation absorb and filter water. These processes help remove pollutants from runoff, allow for the recharge of groundwater, and reduce flooding by slowing the rate at which water runs off the land during rain events. Farmland may also act as a carbon sink by sequestering carbon dioxide for extended periods of time, preventing the gas from reaching the atmosphere and contributing to global warming.

While farming operations have been associated with environmental impacts as well as benefits, they are becoming increasingly well-managed. Recognizing the importance of farmers as stewards of the environment, federal and state governments and conservation groups have developed programs, such as the Chesapeake Bay Foundation's "bayscapes" program to assist farmers' efforts to minimize negative environmental impacts that can be caused by farming, enhance the habitat value of their land, and preserve their land.

Many communities throughout the nation have enacted land use policies – such as large-lot zoning - to try and preserve farmland and open space and derive environmental benefits from the lower density of development and the preservation of open land. There is no absolute density or lot size that can be said to be ideal for protecting either farmland or natural resources. However, studies have shown that viable farms typically have a minimum size of about 25 acres, and many agricultural preservation zoning regimens have adopted minimum lot sizes of 20-25 acres.

While specific environmental benefits resulting from the Recommendations for Rural Lands cannot be quantified at this point, it is clear that to the extent that they succeed in encouraging more protected open space and low-impact uses such as farming, they could have significant environmental benefits that could accrue to all County residents as a whole.

Preserving Rural Character

According to the Herd Planning & Design study of the Rural Lands, "*...a three-acre minimum lot size or overall density in the A-1 District is not a large enough lot size to preserve the rural or agricultural character of the area, in and of itself.*"[5] In addition, the report also states that "... *Rural cluster zoning would be a valid option, and one the County should pursue. However at the current three to four acre average density permitted under A-1 standards, it won't really solve the problem of preserving the rural area as a fundamentally rural place, much less preserving any functional, core agricultural land area.*"[6]

These observations in the earlier County study were also confirmed in the research and findings of this study. Through a series of case study examples, the consultant team identified the potential impacts to open space, rural viewscapes and overall rural visual character resulting from both conventional and cluster development. Moreover, similar observations were also noted by Steering Committee members in site visits of existing conventional and cluster communities developed at various densities in Loudoun County, Virginia.

For example, the following "buildout" studies of the Forge Road corridor were conducted to assess the impacts of cluster versus conventional development:

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5 Rural Land Protection Study for James City County, Virginia; February 15, 1999; Herd Planning & Design

6 ibid.

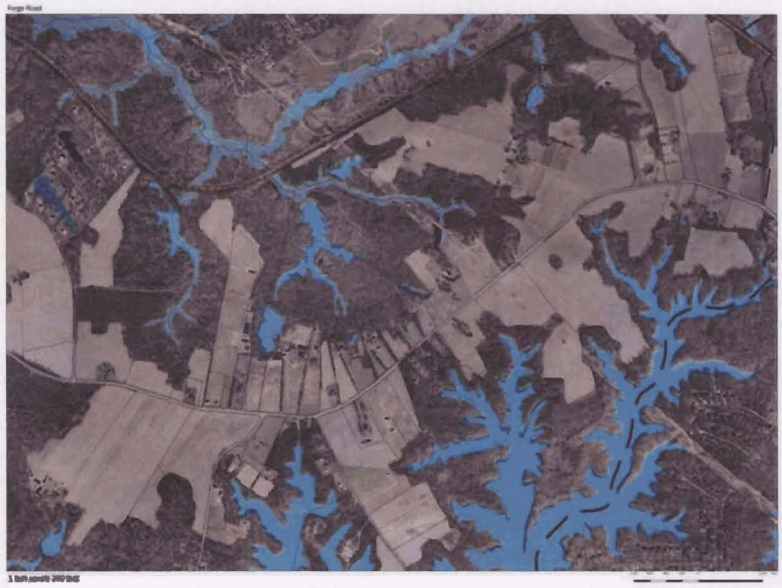


Figure 1. Aerial Photo of the Forge Road Corridor

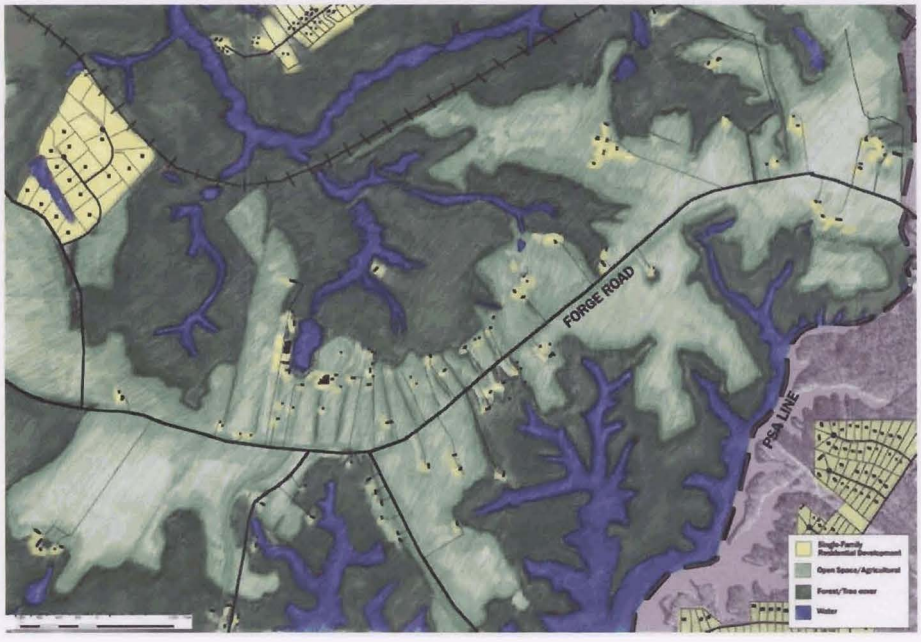


Figure 2. Existing Conditions in the Forge Road Corridor

Figure 3. Buildout development with conventional 3-acre lot development

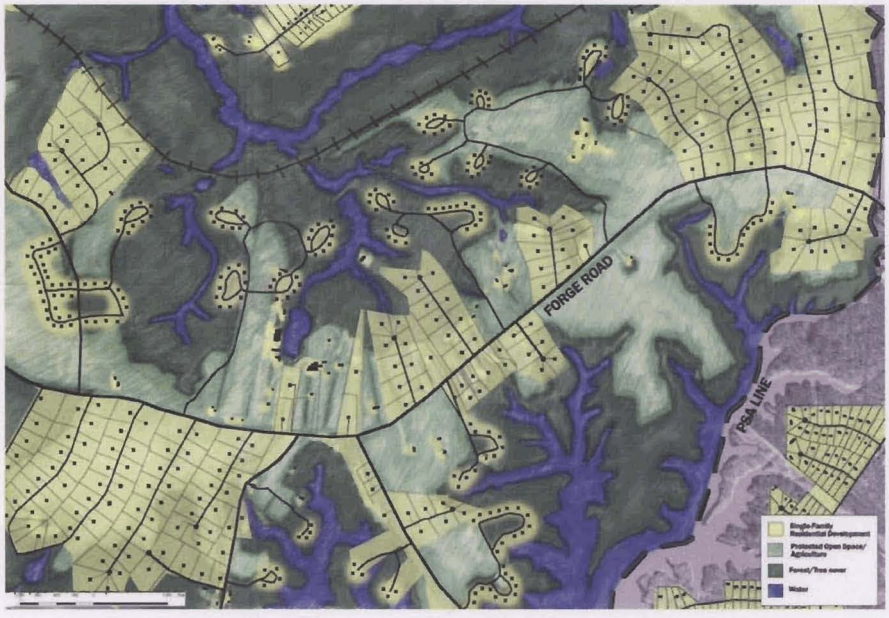


Figure 4. Buildout with Voluntary Cluster Development at 1 unit per 3 acres (assumes 50% cluster and 50% conventional development)

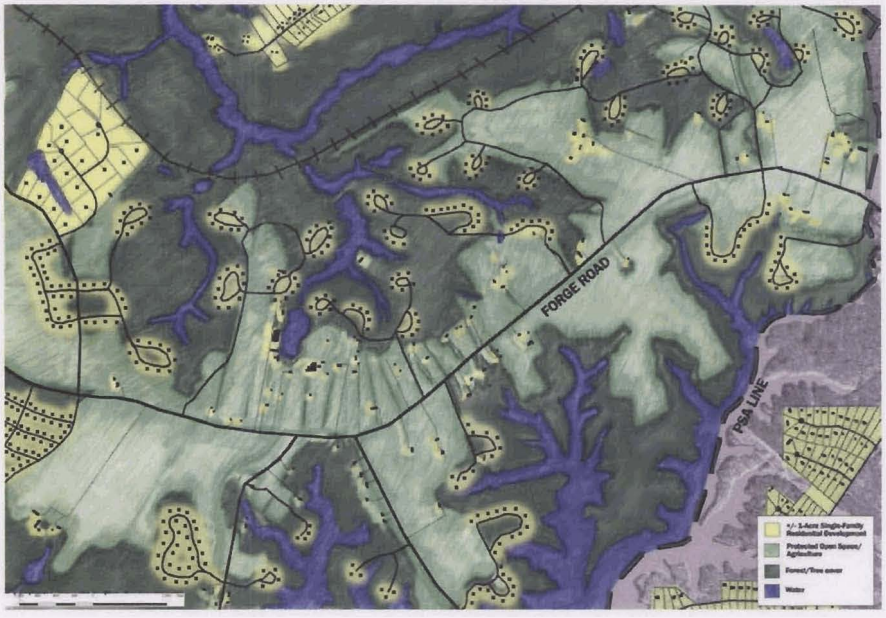


Figure 5. Buildout with Mandatory Cluster Development at 1 unit per 3 acres

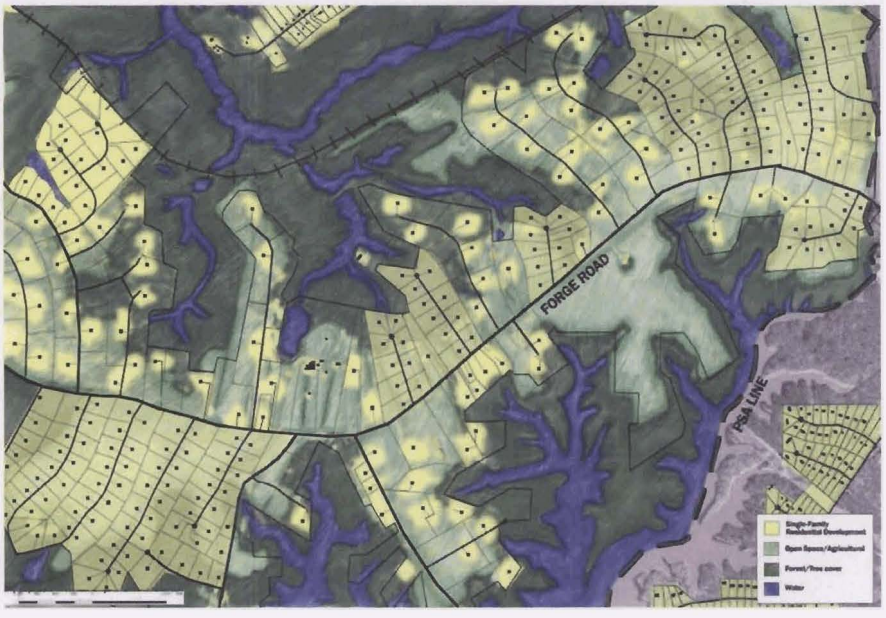


Figure 6. Buildout with Voluntary Lower-Density Development at 1 unit per 10 acre density assumes 50% Lower Density (10 acre) and 50% Conventional (3-acre) development

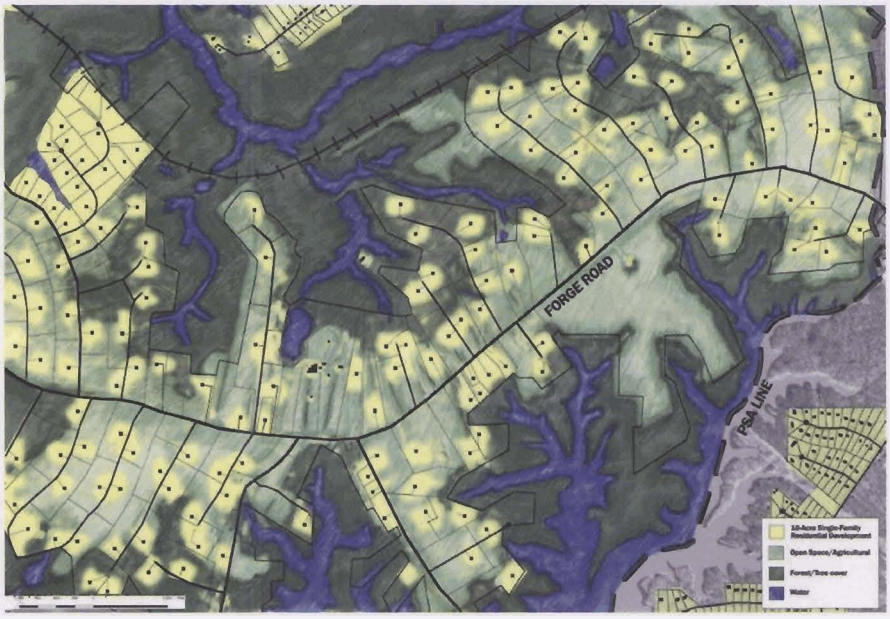


Figure 7. Buildout development with mandatory conventional 10-acre lot development

As shown in the above illustrations, the overall existing rural character and density of development in the Forge Road corridor as shown in figure 2. would be significantly altered by a buildout under any of the subsequent scenarios. The most significant impact results from the conventional 1 unit per 3 acre buildout (figure 3.). However, even a buildout at significantly lower densities, such as one unit per 10 acres (figure 7), produces a landscape that has been transformed. Instead of the current pattern of large open tracts with occasional groupings of houses, this landscape shows a relatively uniform pattern of houses and smaller open spaces. The resulting visual impression would likely be one of modified rural sprawl, with houses being the dominant aspect of the rural viewscape, even within a more dispersed pattern.

The greatest potential for preserving open space comes from a mandatory cluster development pattern (figure 5.). However, at one unit per 3 acres, even this pattern would transform the area from a predominantly rural one, into a much more developed landscape, with developments that are well screened, but still prominent due to their frequency, and to the greatly increased population in the area.

These theoretical potentials were somewhat borne out from the field observations, during the Steering Committee's field trip, of actual clusters developed at various densities in Loudoun County, Virginia. As shown in the example below, even well designed clusters at one unit per 3 acres can give the visual aspect of a suburban-style development. It is a development that is both high quality and well buffered, but it nevertheless has a quasi-suburban visual quality and is far from the rural viewscapes prevalent in much of James City County's rural landscapes today.

LOVETTSVILLE HAMLET - 'Cluster Development - Lot Size: 1 Ac. - Density: 1 Unit / 3 Acres

On the other hand, the field trip also yielded an example of a lower density cluster development prototype that had successfully preserved a more rural character, through the preservation of a working cattle farm, and an overall lower intensity pattern of settlement on the land:

DUNTHORPE FARM "A-10" Cluster Development - Lot Size: 1-50 Ac. - Density: 1 Unit / 10 Acres

The above example shows the benefits of combining lower density and clustering in the ability to

preserve working farms, to effectively preserve rural viewsheds and to cluster the limited number of houses so they are not a dominant element in the rural landscape.

This analysis suggests that two aspects of the Recommendations for Rural Lands are of special prominence in maintaining the rural character of this area, while allowing for a range of land uses and settlement types:

- Reducing density – while the Recommendations do not specify an actual density for the Rural Lands, external evidence from other communities suggests that a density of 1 unit per 10 acres or lower is needed in order to preserve the general visual quality, lifestyle and function of a rural area.

- Cluster development – In addition to the lower density, it is apparent – also from studying examples in other communities – that densities of 1 unit per 10 acres are not in themselves sufficient to preserve rural visual character. In addition, a cluster development pattern is also needed, with the lower densities, in order to avoid a "large-lot sprawl" pattern over the landscape.

In fact, those counties in Virginia that have successfully preserved their rural landscape and quality of life in the face of development pressure have tended to use both clustering and significantly lower development densities to achieve this end. The chart below compares a number of counties throughout Virginia that have developed both large lot rural zoning (for agricultural preservation) and cluster ordinances.

Virginia County	**Base Rural Density**	**Density Bonus for Cluster**	**Lot Size for Conventional Development**	**Lot size for Cluster Development**	**Minimum Open Space Required in Clusters**	**Mandatory or Voluntary Cluster**
Hanover[7]	1:10	1:6.3+	10 ac.	6.3 ac+	70%	Voluntary
Isle of Wight[8]	1:40	Up to 1:5	40 ac.	varies	50-70%	Voluntary
Fauquier[9]	1:25 to 1:50	None	25 to 50 ac.	0.68 ac.	85%	Voluntary
Loudoun[10]	1:3	None	3 ac.	0.33 ac.+	85%	Voluntary
Chesterfield[11]	1:2	None	2 ac.	0.28 ac.	50%	Voluntary
Clarke[12]	1:15+	None	2 ac. Max	2 ac. Max	N/A	Mandatory

As shown in the chart above, several communities in Virginia have attempted to establish some form of rural character preservation through a combination of clustering and low density/large lot ordinances in their rural areas.

In addition, cluster development provides the greatest scenic benefit in wooded areas, as the development can be screened behind existing woods, and the views from the road can be

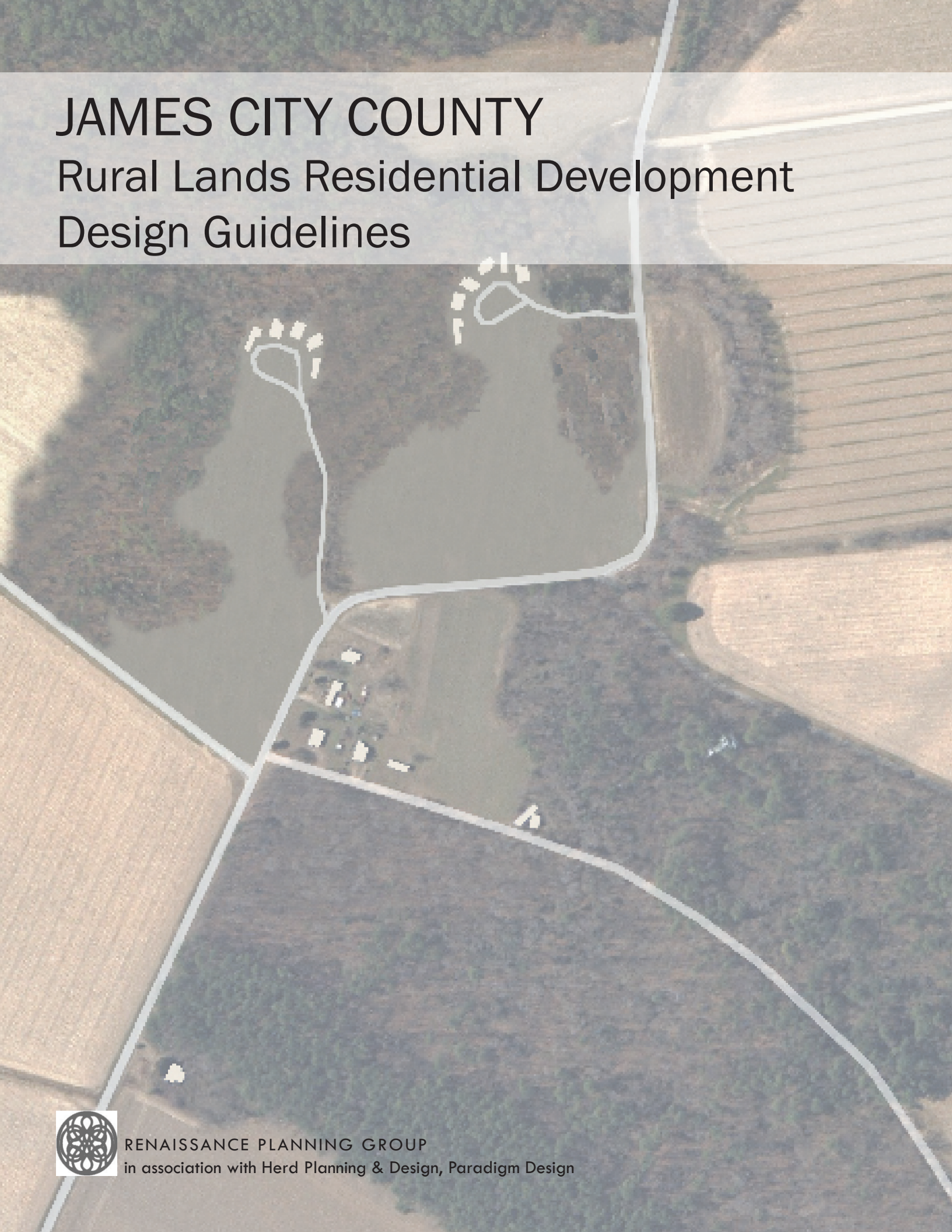
7 Cluster is required to obtain maximum density in rural areas
8 Clustering allows density bonuses – bonus varies with amount of open space preserved
9 Clustering is used in combination with sliding scale zoning
10 Loudoun zoning is currently proposed to be revised in the rural areas to densities of 1:20 to 1:40
11 Densities and lot sizes reflect public utilities for cluster lots
12 Incorporates sliding scale zoning with a maximum lot size (de facto clustering)

largely unaffected. However, in an open landscape, such as that in the Forge Road corridor, the scenic benefits of clustering are more limited. The visual impression of new development may dominate viewscapes from the rural roadway, but it there is more opportunity for it to be set back further than with conventional development, and to plant screening that can over time visually buffer the development.

This also points out the important need for effective design standards to be incorporated into any cluster ordinance. For example, without design standards that call for setting development back from rural roadways, houses could be concentrated along the highway, and the net result would be that clustering would actually have greater visual impacts than conventional development. In general, the higher the densities in rural areas, the more there is a need for design standards in order to preserve some of the rural visual character of an area.

While the Steering Committee was sensitive to the strong desires of rural property owners to maintain their current development densities, it is important to note that both conventional and clustered development patterns – if current densities are maintained – could potentially lead to a transformation of the Rural Lands in James City County from a rural to a quasi-suburban character over time, as the rural landscape is filled in with residential subdivisions.

JAMES CITY COUNTY
Rural Lands Residential Development Design Guidelines



RENAISSANCE PLANNING GROUP
in association with Herd Planning & Design, Paradigm Design

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Purpose and Intent

This document is intended as an accompaniment to the James City County Residential Development in Rural Lands Steering Committee Recommendations report. Its purpose is to help illustrate some of the design objectives for cluster development in the Rural Lands that were recommended by the Steering Committee. Furthermore, these Guidelines are also intended to meet the "Rural Land Development Standards" of the James City County Comprehensive Plan.

The James City County Residential Development in Rural Lands Steering Committee was appointed by the County Board of Supervisors and met from October 2005 to April 2006 in order to develop a series of recommendations for implementing the policies of the County's Comprehensive Plan relative to the Rural Lands in the County. During this period, the Steering Committee has studied potential ways of protecting rural character in the County, while also preserving the rights of rural property owners to use their lands for a variety of purposes, including both farming and forestry and rural residential development, among others.

Recognizing that residential development can sometimes be incompatible with the preservation of traditional land uses, such as farming and forestry, as well as the overall visual character of the countryside, this manual is intended to demonstrate simple design and site planning techniques to minimize this incompatibility and to ensure that new residential development in the Rural Lands is as compatible as possible with the traditional rural context of these parts of the County.

INTRODUCTION

In James City County, human uses have been part of the natural history of the landscape for centuries. Native Americans gathered shellfish and grew corn, settlers cleared farmland and built towns, and crops and farming products contributed to the economy of a prosperous and independent United States. The history of land use in the Rural Lands has been to use the land for sustained economic return through traditional industries such as farming and forestry. As the County entered the modern era, this tradition is changing, with the most profound changes resulting from increased development pressures and new residential subdivision development.

As these new patterns of settlement begin to transform the rural landscape of the County, it is important to explore ways that some of the traditional rural quality of life and visual character of the County can be maintained, through careful site design and development techniques, that will blend the new development compatibly into the rural fabric of the County.

These design guidelines describe the characteristics of the County's rural landscape, explaining how farms and homes are part of a bigger picture of the surrounding natural landscape. Then, the text describes specific design guidelines that can serve as a tool for designing new buildings and improvements that protect the natural processes and functions of the rural landscape and maintain the human and cultural traditions of rural settlement patterns.

STEWARDSHIP OF THE LAND

At the core of guidelines' approach is the principle of stewardship of the land. The physical design of all site and building elements in the landscape should fully support this principle. The designs should embody a respect for the environment, the land and the history and way of life of the people who live in it. The overall approach should be one of restrained, harmonious design solutions that seek to understand and fit within their surroundings, rather than standing out or calling attention to themselves.

GOAL OF THE DESIGN GUIDELINES

Landowners in their role as stewards of the land should understand the mosaic of many elements that make up the traditional rural landscape, rather than focusing on only one aspect, like environmental protection or historical accuracy. The County's farmlands are part of an old working landscape". They have been settled and maintained for centuries in a way that has conserved the basic health of the whole ecosystem that surrounds them.

The goal of the stewardship of the land, is to continue the delicate working balance between mankind and nature in this landscape, rather than to exclude human uses of these lands. As we build anew on these farms, the design approach we take needs to address both human and natural ways of life in order to maintain the careful balance between them.

Design Principles

The Design Guidelines are intended to serve as an effective tool for solving the variety of design problems encountered by homeowners of today, as well as guide future decisions in the changing circumstances of tomorrow. In order to rest on a firm foundation the Guidelines have been derived from the following basic design principles. They form a standard by which individual interpretations of the guidelines can be measured now and in the future.

1. ECOSYSTEM PROTECTION

The design of all elements in the rural landscape should support the protection of the natural ecosystem. Design solutions should help sustain the natural processes and functions that keep this ecosystem healthy and intact.

2. HABITAT PROTECTION

Planning and design of elements on rural properties should protect key habitats for migratory birds, rare flora and fauna and significant natural communities on and around each property.

3. WATER QUALITY

Ground water and surface water quality and quantity and existing drainage patterns should be maintained and protected. The overall watershed impact of improvements should be understood, and all water systems, whether coastal bay, upland creek, or wetlands should be maintained and protected.

4. FARMLAND PROTECTION

Design and planning on farms should protect the agricultural traditions and history of the area and provide support and protection of prime farmland – even where a viable farming economy no longer exists, the goal should be to provide opportunities for future diversified farming, potentially on a smaller scale and with more value-added products.

5. CULTURAL HERITAGE

The County's cultural heritage and traditions should be preserved in the planning and design of properties. The design approach should be particularly sensitive to the special places and local and family history of each individual farm.

6. VIEWSHED PROTECTION

Existing vistas and viewsheds on the farms should be protected as much as possible. The rural, agricultural character of the site and its distinctive pattern of fields, tree lines and hedgerows should be respected and maintained as fully as possible.

7. HARMONY WITH SURROUNDINGS

All physical improvements on properties should fit within a harmonious whole. Adjacent buildings and improvements should be compatible with each other and sharp contrasts of form, color and style should be avoided.

8. VISUAL INTEGRITY OF FARMS

The existing visual character and integrity of individual farms should be maintained wherever possible. Traditional visual boundaries such as tree lines and field edges should be preserved as much as possible. The property should have, despite some changes and new settlements that happen in the course of time, a basic compatibility with its original landscape character and form.

Design Guidelines

OPEN SPACE PROTECTION

OBJECTIVE: To preserve the integrity of the site's natural resources and protect and enhance the site's indigenous landscape, habitats and ecosystems to the greatest extent possible.

Arrange site elements to protect and enhance special land characteristics, natural features, rare or endangered species areas, archaeological sites, and other unusual natural or man-made site characteristics.

Create interconnected landscapes - contiguous networks and habitat corridors within the site and beyond its boundaries.

Design for harmonious visual impact. Protect views and viewsheds within the site and beyond the site to the surrounding landscape, water, or natural areas.

Continue to provide the diversity of landscapes and natural habitats now found on the site, including open fields, forests, hedgerows, streams and wetlands.

Restore and enhance currently damaged or degraded landscapes and wildlife habitats creating new natural areas and wetlands on the site.

Retain existing vegetation, particularly trees, and minimize forest fragmentation.

Minimize direct impact on wetlands. Protect wetlands by minimizing wetland crossings and activity within the Chesapeake Bay Resource Protection Area.

Architectural elements and lighting should be designed to avoid harming or disrupting wild flora and fauna. Light pollution to off-site areas should be kept at a minimum, and dark sky principles should be employed.

WATER QUALITY

OBJECTIVE: To preserve the integrity of the natural watersheds on the site and respect the pre-development patterns of drainage, runoff, groundwater recharge, and water quality in the design of the project.

Maintain the natural state of watercourses, swales and floodways as much as possible.

Where possible, water quality should be maintained and enhanced through natural means, by gradual infiltration and controlled runoff through vegetated areas.

Design systems and landscapes that promote water conservation. The use of gray water systems, rainwater collection, and water-conserving processes, as well as plumbing fittings and fixtures is strongly encouraged.

Design environmentally sound systems for stormwater and greywater collection, pollution removal and storage.

When possible, roof drainage should be captured in rainwater cisterns to be used for irrigation or distributed and allowed to infiltrate slowly into groundwater.

Minimize the use of outdoor cleaning and maintenance products which may adversely affect water systems.

Runoff from parking and paved areas and should be pre-treated when feasible to remove pollutants before discharge to perimeter water management systems.

ARCHITECTURE + BUILT FORM

OBJECTIVE: To provide a pleasant, supportive built environment that reflects the traditional patterns of development of the rural portions of the County in its physical form and appearance.

Structures and improvements on the site should generally be clustered and compactly designed to allow for minimal disturbance and extensive natural greenways, and to prevent the suburban sprawl pattern of conventional subdivision development.

The overall form and disposition of built elements in the project should be compatible with the traditional rural development character of the County.

The traditional rural layout of streets and homes in the County should be reinforced through the placement and design of buildings, roadways, and landscape elements.

Rural communities should be designed to be pedestrian-friendly. Use of outdoor benches, trails, and other pedestrian and biking amenities is encouraged.

No particular style of architecture is mandated. However, the architectural style of buildings in the project should use forms and materials that are reflective of the existing traditional rural and residential character of the County.

Building design should take into consideration solar orientation, prevailing winds, and other microclimate environmental-design issues, within the context of the overall traditional architectural character that is to be achieved.

Operable windows, roof vents, overhangs, and other energy-efficient and architecturally-compatible design solutions are encouraged.

Building exteriors should appear inviting and friendly with architectural articulation along the facades facing the travelways. Each building should maintain a human scale at the street level, with traditional elements such as front porches, landscaping and minimal views of garages or carports.

LANDSCAPE

OBJECTIVE: To provide environmental protection, attractive visual appearance and consistency with the rural landscape through the selection and design of appropriate landscape materials and the preservation of existing vegetation.

Enhance wildlife habitat and species diversity by the planting of select wildlife-attracting species, use of nesting boxes, and other measures.

New plantings and landscaped areas in the project should use native species and species that have minimal irrigation and maintenance requirements to the greatest extent possible.

Lawns and other high-maintenance, water-dependent landscape elements are discouraged.

Landscaping for solar and wind screening and energy efficiency is encouraged.

Fertilizers and pesticides should be limited to organic types and practices.

Rates of application of fertilizers and pesticides should be minimized to prevent excessive runoff.

In naturally wooded sites, the tree canopy should be preserved as much as possible. Clearing should be only as required for construction, yard areas and for breezes and insect control. Often, the site can be opened up to prevailing breezes by clearing only the understory while preserving the tree canopy.

On naturally open sites, tree planting around the new construction is encouraged. Gradual reforestation of settlement areas on open land can be accomplished through the careful reforestation efforts of each individual home owner, as well as new planting in common areas.

The majority of new plantings should be of vegetation that is native to coastal Virginia. The suggested plant list attached to the design guidelines provides examples of plants that will help maintain the character of the landscape on rural land. Native species typically need less water and fertilizer to survive and are more resistant to local insects and plant diseases.

Non-native vegetation should be used sparingly; as focal points or accents, rather than as the dominant theme in the landscape plan.

MISCELLANEOUS SITE ELEMENTS

UTILITIES

Phone and electric service is provided by local utility companies. All lines should be installed underground as required by County codes.

Site underground utility lines as closely as possible to the driveway to reduce costs and minimize clearing and grading.

WELL + SEPTIC

Greater design flexibility can sometimes be attained by situating drainfields off of the individual cluster lots, (right).

Plumbing fixtures should be of the water conserving type to minimize impacts on groundwater withdrawals.

Locate septic systems on the most favorable soils on the property to improve efficiency.

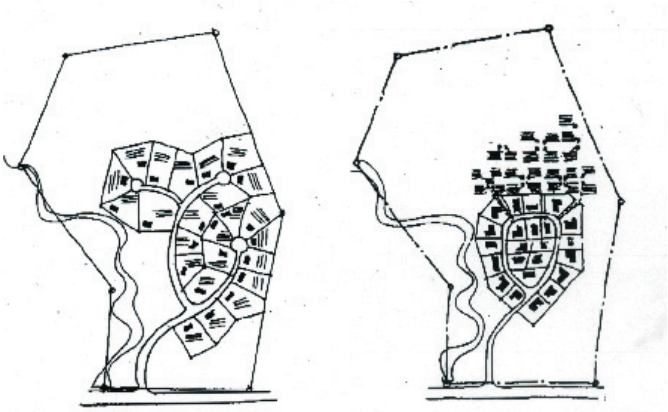
Site septic fields at least 100 feet away from the well and from any creeks, marsh, wetlands or ponds, in concert with the Chesapeake Bay Protection regulations.

Consider installing two septic fields, with a switch to alternate annually between each field. This will dramatically increase the efficiency and life span of the system.

Homeowners should work with a responsible local contractor and the County Health department to locate and design an appropriate septic system. Lot disturbance for installation of the system and piping should be minimized. One key way of doing this is to plan for the septic, well and utility locations as early as possible in the planning process.

Protect the health of the septic system. Do not pour hazardous household chemicals down drains. To prevent clogs, use a garbage disposal sparingly or avoid installing one and never pour grease down the drain.

The installation of more advanced septic systems and alternative wastewater technologies that protect the environment and reduce groundwater contamination is encouraged.

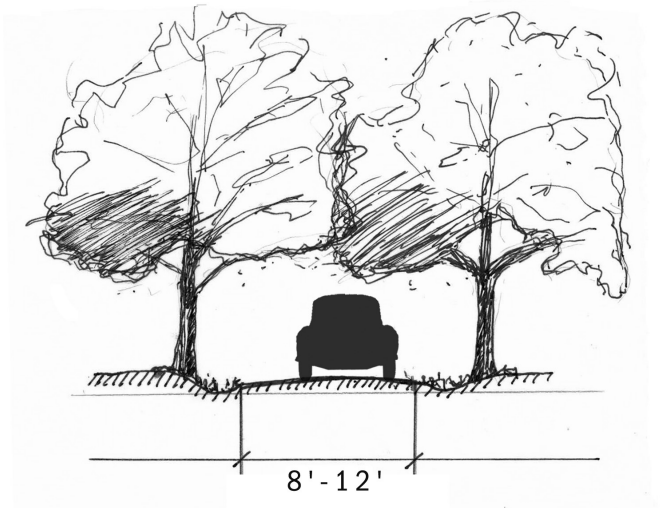


Drainfields on individual lots

Drainfields on common area

MISCELLANEOUS SITE ELEMENTS

DRIVEWAYS + WALKS

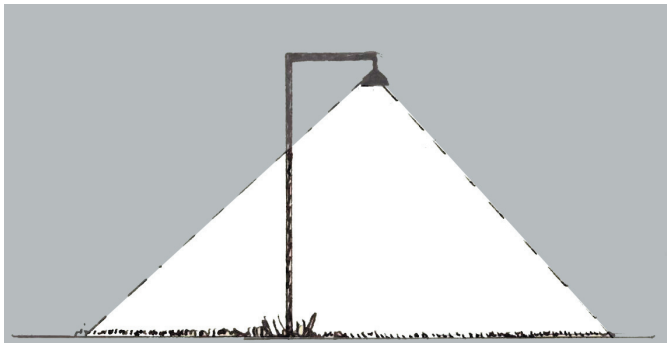


Keep the driveway as narrow as possible, about 8 to 12 feet wide, to retain the tree canopy and create an attractive natural archway over the driveway on wooded sites.

Driveways should be designed to wind in a natural way around prominent trees or tree groupings, special plant communities or wetlands to protect resources and increase privacy.

Walkways should reflect the rural natural setting, and as such should be made from a more natural material (such as mulch, dirt, etc.). Walkways should incorporate where possible the pre-existing farm paths.

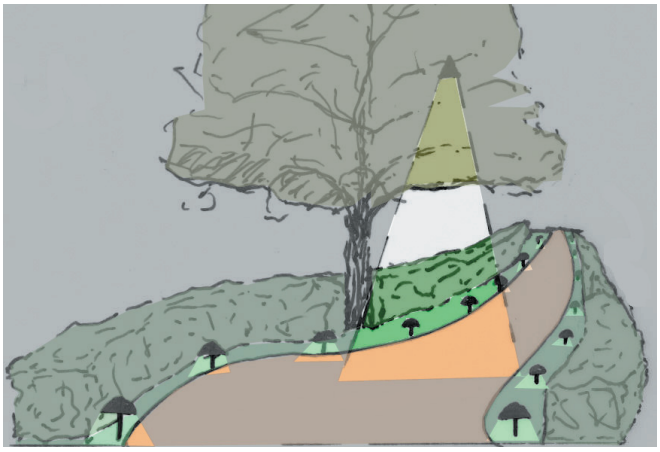
LIGHTING



Lighting design should prevent light pollution and support preservation of “Dark Skies ” within the farms, both for the enjoyment of residents and for the protection of wildlife, which finds high lighting levels disturbing and disorienting within their habitats.

User-activated lighting systems such as motion-sensors and light timers should be employed to keep the total lighting output from the residences to a minimum.

Overall site lighting should be kept to a minimum and used solely to provide night visibility for pedestrians. Flood and spot lights should not be used as they can be disorienting to nesting wildlife and glaring to neighbors.



Lighting needed for pedestrian circulation and outdoor entertainment should be accomplished by indirect means if possible, such as shielded path lights, step lights or restrained tree lighting.

CLUSTER DEVELOPMENT

The Recommendations for Rural Lands place special emphasis on the value of Cluster Development as a means of preserving open areas and views in the landscape while accommodating residential development. The following guidelines on cluster development in general, and on specific cluster types, are intended to give landowners a basic understanding of this development pattern, and of opportunities to incorporate it into their planning process when and if they choose to develop portions of their land.

CLUSTER DESIGN PRINCIPLES

Houses should be located to conserve open space and have least visual impact on the landscape.

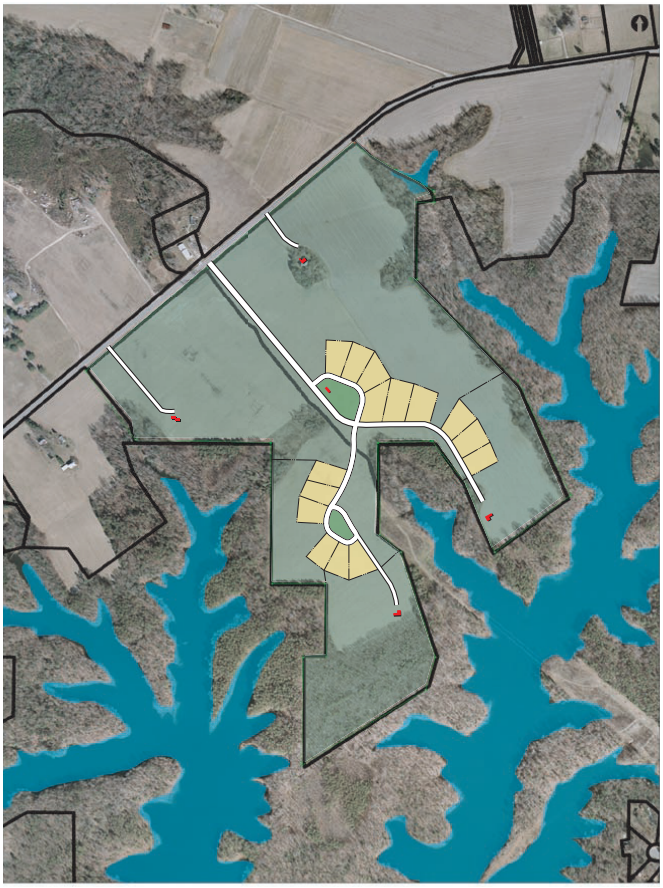
On a lot located horizontal to the road with little room for setbacks, homes should be clustered near the wooded edge and/or screened with a landscape buffer.

Minimize the number of access points to existing rural roadways in the design of the road patterns in a cluster development.

Roadways can often be hidden along the forest edge on a site.

Larger setbacks are encouraged whenever possible to conserve the maximum amount of open space and to preserve rural vistas.

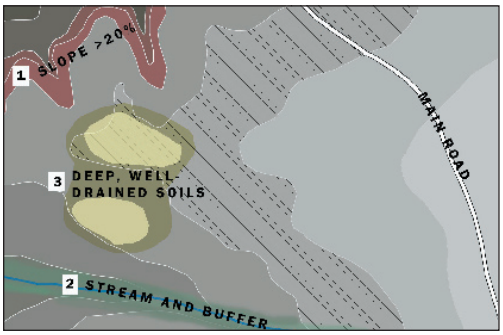
The physical design of all site and building elements in the rural lands should respect the environment, the land, the history, and the way of life of the people who live in it.

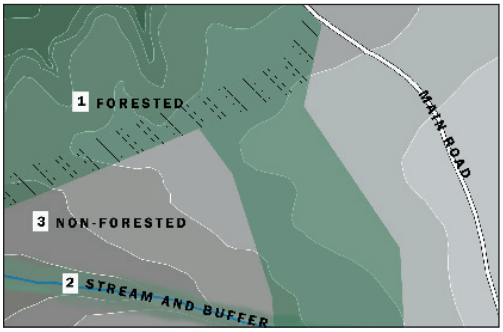


The hatch pattern in the diagrams below represent the best opportunity for development on this site, with the least amount of impact. These diagrams are representative of a process that can be applied on a site-specific basis to determine the most appropriate location for development with the goal of preserving open space and rural vistas.

Existing Conditions

The best opportunity for development on this hypothetical site is indicated in the hatch pattern below. The land is < 20% slope and incorporates good soils for on-site drainage.





1 Slope: Slopes greater than 20% are less desirable. Avoid siting buildings along ridgelines to preserve rural vistas.

2 Streams: Streams, floodplains, and wetlands should be conserved.

3 Soil: Soil analyses will locate the best soils for on-site drainage. Refer to a soil survey and field verify to locate a site for septic drain-

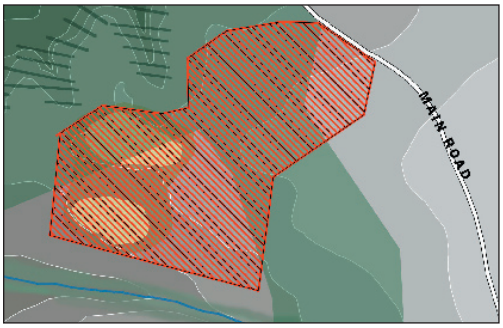
1 Forest: Forest edge is optimal for siting houses and roads, while retaining open space viewsheds. Prioritize preserving mature stands of trees and native species.

2 Stream Buffer: Landscape buffers protect the health of the stream and act as wildlife corridors. Preserve these buffers at a minimum of the Chesapeake Bay requirements.

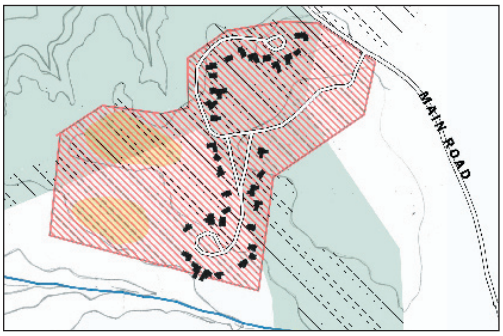
3 Non-forested land: Includes farmland, open fields, meadows, and other land uses.

Development Planning

The physical design of all site and building elements in the rural lands should respect the environment, the land, the history, and the way of life of the people who live in it.



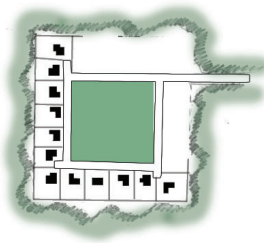
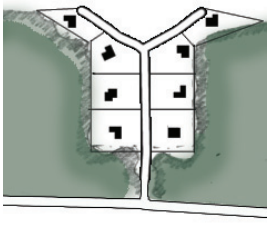
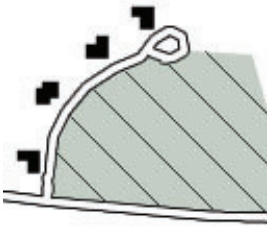
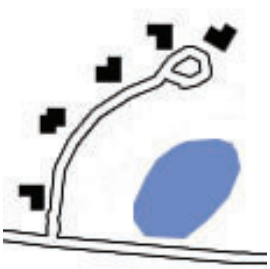
Overlaying the existing conditions above, the remaining property highlighed in red is best suited for development. It takes advantage of the forest edge, incorporates soils for drainage, is on a slope of < 20% and conserves a high proportion of forested land.



Building a cluster type development on this land could resemble the following diagram. One driveway connects with the main road and houses are tucked into and behind the trees. Open space is conserved adjacent to the road for agriculture or to maintain a rural vista.

CLUSTER TYPES

The following diagrams give some examples of cluster types and the opportunities available for using existing site features as focal points in the design of clusters. Landowners should study these basic cluster types if they are considering development of their property, and, working with a qualified land planner, incorporate the design principles in the layout of their site.

Diagrams	Image Examples	Description
		Village Green Cluster homes around an open greenspace for passive or active recreation, or for privacy and visual screening of adjacent properties; The greenspace can be a identity element of a cluster community.
		Forest Edge Homes can be developed in a linear cluster with open space or forest in view to the front and the back of the house. Wooded trails would be a great asset to this development for promoting a sense of community and a recreational opportunity.
		Farm Commons Homes can be developed in a linear cluster with open space or forest in view to the front and the back of the house. Wooded trails would be a great asset to this development for promoting a sense of community and a recreational opportunity.
		Water Feature Clustering homes along a water element offers both aesthetic benefits and can function as a fire safety element.

CONCLUSION

Rural County landowners who decide to implement these simple design guidelines for the protection of the rural landscape possess an opportunity to live in the midst of an exceptional natural setting, as partners in the protection of the rural landscape. By acting as stewards of their land and working to understand and care for its natural systems, landowners will support the human and natural communities in the County's rural landscape as a whole. Landowners will thereby be helping to maintain the area's natural diversity and scenic rural landscape for generations to come.

JAMES CITY COUNTY
RESIDENTIAL DEVELOPMENT IN RURAL LANDS
Technical Committee Draft Recommendations
January 29, 2007

NEW DEVELOPMENT OPTIONS for RURAL LANDOWNERS

What are the new Development Options?

A set of four new residential development options and new standards for the existing A-1 and R-8 zoning districts in James City County. A-1 and R-8 are the two main zoning districts in the rural lands in the County.

What is the purpose of changing the standards?

To implement the goals of the Comprehensive Plan for preserving the character of the County's Rural Lands while meeting landowner needs for more flexible development options. There were three guiding principles used by the Technical Committee in developing the draft recommendations:

- To respect property rights
- To reduce the overall impact of residential development in the Rural Lands
- To encourage development patterns that protect the rural character of the area

Does this change how many lots can be created on a parcel?

In most cases, the number of lots that can be created on small and medium sized parcels will not change. For larger parcels, there will be some reduction in the permitted number of lots, along with additional development options for larger parcels.

Does this mean that rural residential development will no longer be "by-right?"

No – all the development options are "by right" except that cluster developments above 30 lots will be permitted only by special use permit. "By-right" means development that is permitted through a normal subdivision process and does not require legislative approvals such as rezonings or special use permits.

Will clustering be mandatory in the Rural Lands?

No – some of the development options are for conventional (not cluster) development and some are for cluster development – landowners may choose any one of the four options for the development of their land. "Clustering" is a type of development that uses smaller lots that are grouped together so that adjacent open space can be protected.

Will the new development options help preserve resources in the Rural Lands?

Yes – the options are designed to offer better protection of resources and rural character through larger lot sizes or conservation areas that preserve a site's most valuable natural resources.

Will the new standards affect Family Subdivisions?

There are no changes proposed to the current Family Subdivision standards. "Family subdivisions" allow lots with different standards to be created for certain family members as called for by State regulations and defined in the County Zoning Ordinance.

THE CURRENT STANDARDS

Currently, the A-1 and R-8 zoning districts have the following standards for residential development:

- Minimum lot size is 1 unit per 3 acres
- There is no maximum density – it is determined by the minimum lot size
- Clustering is not permitted
- Major subdivisions (generally developments of more than 9 lots) require a public water system (common well). Individual private wells are permitted in minor subdivisions (generally developments of 9 or fewer lots).

HOW THE NEW OPTIONS WOULD WORK

The Rural Lands Technical Committee has recommended that the current development standards in the A-1 and R-8 districts be replaced by the following four development options:

1. Fixed Lot Option

- Any parcel can be developed with a maximum density of 1 unit per 3 acres for a total of no more than 7 lots
- The minimum lot size is 2 acres
- The maximum density is 1 unit per 3 acres (up to a total of 7 lots)
- At least 30% of the site must be in open space and protected by an easement (although it may be in private ownership)
- No change is proposed to current JCSA requirements. All lots may be served by private wells (no public water system is required)

2. Conventional Option

- Parcels may be subdivided into 12 acre or larger lots
- The minimum lot size is 12 acres
- The maximum density is 1 unit per 12 acres
- All lots may be served by private wells (no public water system is required)

3. Base Density Cluster Option

- Parcels may be subdivided into 8 acre or larger lots
- The minimum lot size is 8 acres
- The maximum density is 1 unit per 12 acres
- At least 30% of the site must be in open space and protected by an easement (although it may be in private ownership)
- All lots may be served by private wells (no public water system is required)

4. Rural Conservation Cluster Option

- Parcels would be divided into conservation areas and cluster areas. The conservation areas should preserve the site's key resources.
- On the cluster areas, lots of at least ¾ acre size may be built
- On the conservation areas, an easement must be recorded, but it may be owned privately with an individual house on the area, or it may be dedicated to a public or semi-public entity

- The maximum density is 1 unit per 4 net acres. Net acreage is determined by subtracting non-developable area from the total, or gross, acreage of the parcel
- The minimum lot size for cluster lots is ¾ acre
- The maximum average lot size for the cluster lots is 1.5 acres.
- At least 60% of the site must be in the conservation area and protected by an easement (although it may be in private ownership with an individual home on it)
- All lots may be served by private wells (no public water system)
- Private wells may be used to serve developments of up to 15 lots
- Developments of 16-30 lots must be served by a public water system (common wells) – however, there are no fire-flow requirements if the homes have sprinklers (additional information on these standards can be obtained by contacting the County Planning Department)
- Developments of over 30 lots must be served by a public water system (common well) with fire flow protection. Waivers can be considered during the Special Use Permit process for the development.

FOR MORE INFORMATION

For more details on these proposed changes and for the latest information, visit the James City County website at:

http://www.james-city.va.us

Written comments can also be sent via this website or mailed to the following address:

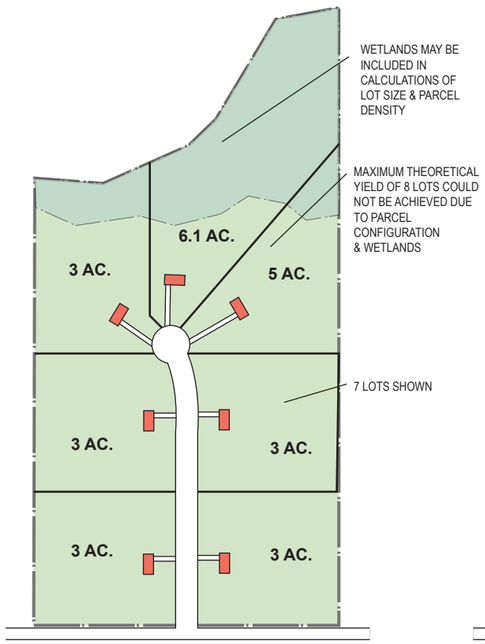
Mrs. Tammy Rosario
James City County Planning Division
P. O. Box 8784
Williamsburg, VA 23187-8784

Please send comments by February 12, 2007, to be considered at the next Technical Committee meeting; however, comments will continue to be collected and reviewed through the remainder of the process.

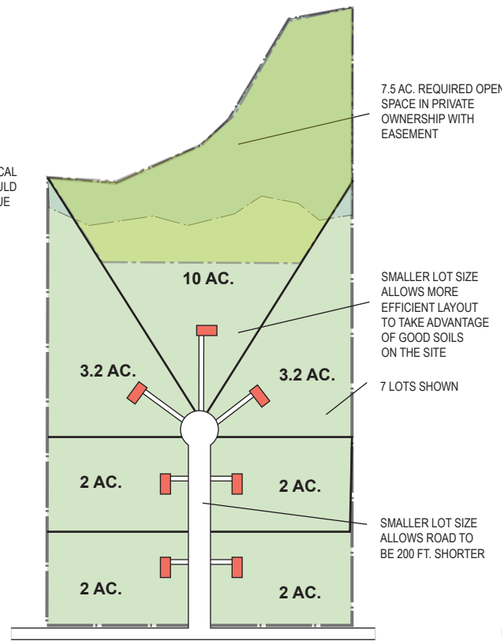
25 ACRE SAMPLE PARCEL

(7.2 ACRES WETLANDS & 18.8 ACRES UPLANDS)

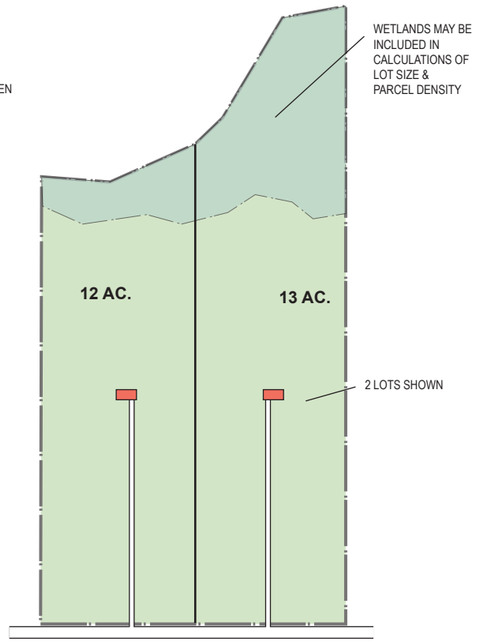
EXISTING STANDARDS



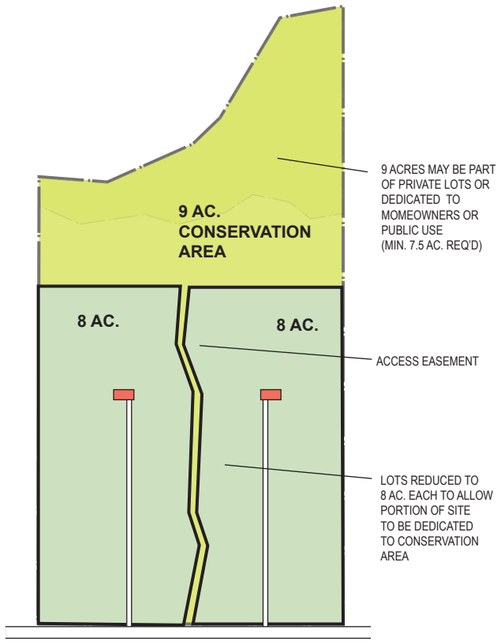
NEW STANDARDS OPTION 1. FIXED LOT



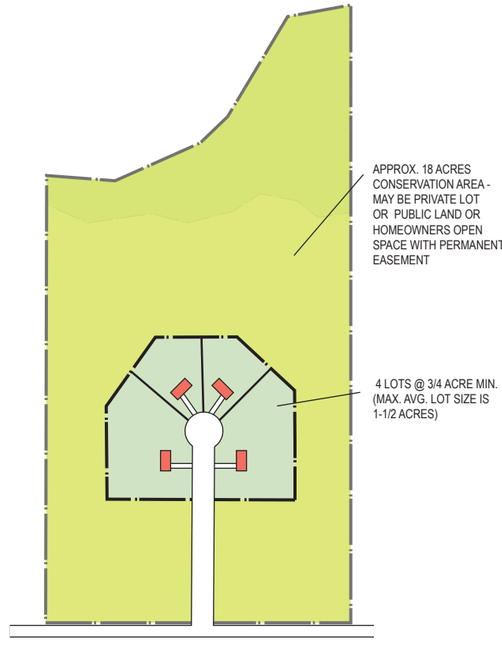
NEW STANDARDS OPTION 2. CONVENTIONAL



NEW STANDARDS OPTION 3. BASE DENSITY CLUSTER



NEW STANDARDS OPTION 4. RURAL CONSERVATION CLUSTER



EXISTING STANDARDS - CURRENT ZONING

DENSITY BASED ON MINIMUM LOT SIZE
(Site Area may include non-developable land)

MINIMUM LOT SIZE = 3 ACRES

THEORETICAL LOT YIELD = 8 LOTS
(25 AC. divided by 3 AC)

ACTUAL YIELD = 7 LOTS (Lot yield reduced due to parcel configuration and assumed availability of perc. sites)

NO COMMON WELL REQUIRED if 9 or fewer lots

0' 200' 400' 800'

NEW STANDARDS - FIXED LOT OPTION

MAXIMUM DENSITY = 1 UNIT PER 3 ACRES (up to a maximum of 7 lots per parcel)

MINIMUM LOT SIZE = 2 ACRES
(Site Area may include non-developable land)

MINIMUM OPEN SPACE = 7.5 AC. (30% of parcel)

MAXIMUM # OF LOTS PERMITTED (For any parcel size) = 7 LOTS

ACTUAL YIELD = 7 LOTS

NO COMMON WELL REQUIRED - private wells permitted

NEW STANDARDS - CONVENTIONAL OPTION

DENSITY BASED ON MINIMUM LOT SIZE
(Site Area may include non-developable land)

MINIMUM LOT SIZE = 12 ACRES

LOT YIELD = 2 LOTS
(25 AC. divided by 12 AC)

NO COMMON WELL REQUIRED - private wells permitted

NEW STANDARDS - BASE DENSITY CLUSTER OPTION

MAXIMUM DENSITY = 1 UNIT PER 12 ACRES
(Site Area may include non-developable land)

MINIMUM LOT SIZE = 8 ACRES

MINIMUM OPEN SPACE = 7.5 AC. (30% of parcel)
9 ac. open space shown

LOT YIELD = 2 LOTS
(25 AC. divided by 12 AC)

NO COMMON WELL REQUIRED - private wells permitted

NEW STANDARDS - RURAL CONSERVATION CLUSTER OPTION

MAXIMUM DENSITY = 1 UNIT PER 4 NET ACRES
(excludes certain non-developable lands)

MINIMUM LOT SIZE = 3/4 ACRE
(Maximum average lot size = 1.5 acres)

MINIMUM OPEN SPACE = 11.3 AC. (60% of net area)
18 Ac. open space shown

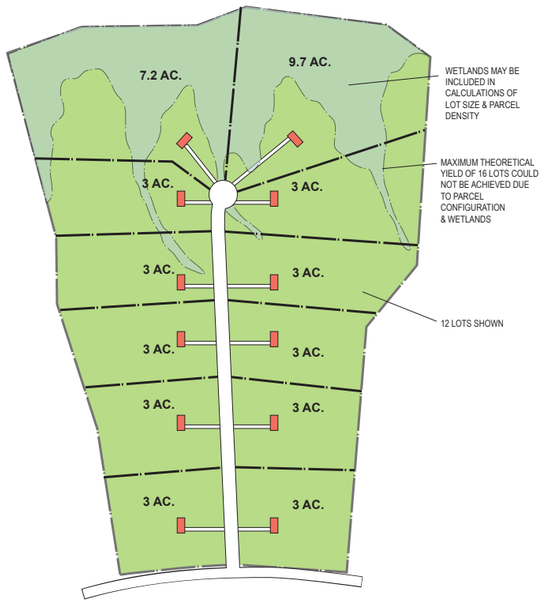
TOTAL YIELD = 4 LOTS
(18.8 Net Acres divided by 4 = 4 LOTS)

NO COMMON WELL REQUIRED - private wells permitted for 15 or fewer lots

50 ACRE SAMPLE PARCEL

(9.5 ACRES WETLANDS & 40.5 ACRES UPLANDS)

EXISTING STANDARDS



EXISTING STANDARDS - CURRENT ZONING

DENSITY BASED ON MINIMUM LOT SIZE
(Site Area may include non-developable land)

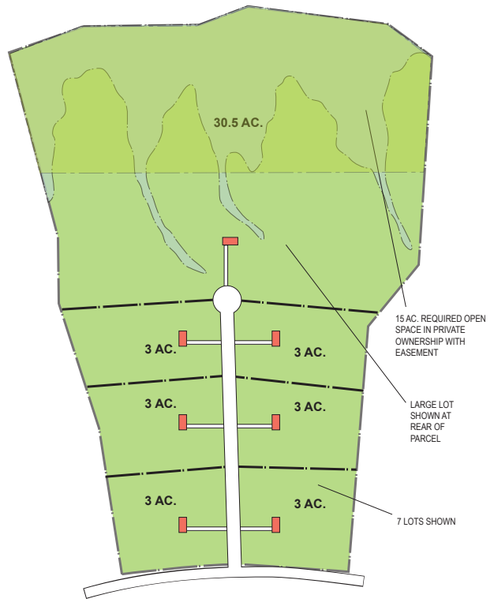
MINIMUM LOT SIZE = 3 ACRES

THEORETICAL LOT YIELD = 16 LOTS
(50 AC. divided by 3 AC)

ACTUAL YIELD = 12 LOTS (Lot yield reduced due to parcel configuration and assumed availability of perc. sites)

REQUIRES COMMON WELL if more than 9 lots

NEW STANDARDS OPTION 1. FIXED LOT



NEW STANDARDS - FIXED LOT OPTION

MAXIMUM DENISTY = 1 UNIT PER 3 ACRES (up to a maximum of 7 lots per parcel)

MINIMUM LOT SIZE = 2 ACRES
(Site Area may include non-developable land)

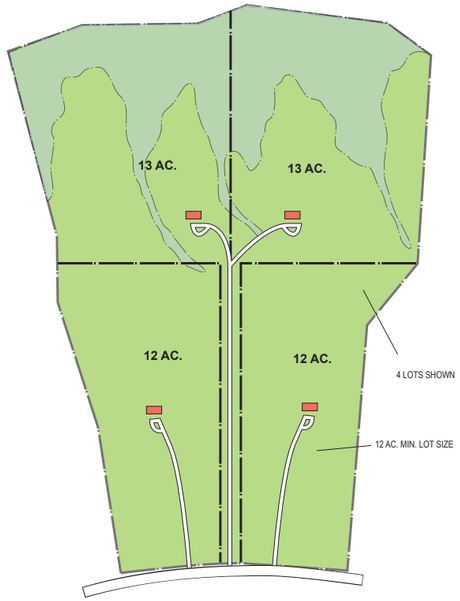
MAXIMUM # OF LOTS PERMITTED (For any parcel size) = 7 LOTS

MINIMUM OPEN SPACE = 15 AC. (30% of parcel)

ACTUAL YIELD = 7 LOTS

NO COMMON WELL REQUIRED - private wells permitted

NEW STANDARDS OPTION 2. CONVENTIONAL



NEW STANDARDS - CONVENTIONAL OPTION

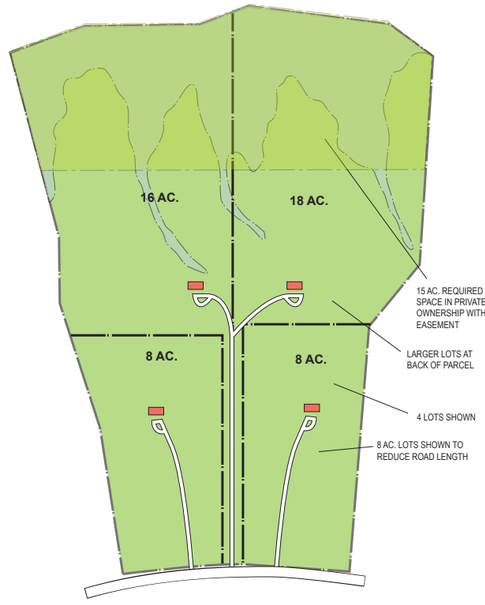
DENSITY BASED ON MINIMUM LOT SIZE
(Site Area may include non-developable land)

MINIMUM LOT SIZE = 12 ACRES

LOT YIELD = 4 LOTS
(50 AC. divided by 12 AC)

NO COMMON WELL REQUIRED - private wells permitted

NEW STANDARDS OPTION 3. BASE DENSITY CLUSTER



NEW STANDARDS - BASE DENSITY CLUSTER OPTION

MAXIMUM DENISTY = 1 UNIT PER 12 ACRES
(Site Area may include non-developable land)

MINIMUM LOT SIZE = 8 ACRES

LOT YIELD = 4 LOTS

NO COMMON WELL REQUIRED - private wells permitted

NEW STANDARDS OPTION 4. RURAL CONSERVATION CLUSTER

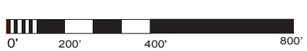
NEW STANDARDS - RURAL CONSERVATION CLUSTER OPTION

MAXIMUM DENSITY = 1 UNIT PER 4 NET ACRES
(excludes certain non-developable lands)

MINIMUM LOT SIZE = 3/4 ACRE
(Maximum average lot size = 1.5 acres)

TOTAL YIELD = 10 LOTS
(40.5 Net Acres divided by 4 = 10 LOTS)

NO COMMON WELL REQUIRED - private wells permitted for 15 or fewer lots



NARRATIVE ORDINANCE DESCRIPTION

DRAFT 1-29-07

Note: This draft is a narrative description of potential ordinance amendments for the James City County Rural Lands, incorporating the work-to-date of the Technical Committee for Rural Lands and staff comments. Final ordinance revisions will be prepared after the narrative description has been reviewed. This draft assumes that the recommendations will be incorporated into the County's existing A-1 and R-8 zoning districts which are the primary districts in the Rural Lands, although there are also some limited areas of A-1 and R-8 zoned land in within the Primary Service Area. General notes and comments are indicated in blue.

AMENDMENTS TO THE A-1 AND R-8 ZONING DISTRICTS

Statement of Intent:

In addition, the purpose of the Residential Development Options of this district is to preserve natural, agricultural, forestal, and open space resources that contribute to the rural economy and rural character. It is anticipated that rural residential areas developed under these provisions in this district will have a lower level of service delivery than residential areas in the Public Service Area.

The permitted residential development options in this district are intended to ensure that substantial, sustainable areas of open space, natural features and prime agricultural and forestal lands will be permanently conserved and maintained. In addition, the Residential Development Options are established to fulfill the following specific purposes:

1. Provide residential development options that permit flexibility of design in order to promote environmentally sensitive and efficient uses of the land.

2. Preserve important, unique, or sensitive natural, cultural, and historic resources such as floodplains, prime agricultural lands, the Chesapeake Bay Resource Protection Area, wetlands, streams, steep slopes, woodlands, populations of endangered or threatened plant species and

related habitat areas, archeological sites, and historic sites and structures through alternative residential development options.

3. Protect the natural groundwater resources in the County from land uses with potential on- and off-site impacts that could impair the water quality and integrity of those resources.

4. Retard runoff, prevent erosion, filter non-point source pollution from runoff, moderate stream temperature, and protect the physical and ecological integrity of the streams and surface waters in the rural areas.

5. Permit clustering of houses and structures in less environmentally sensitive areas, which will reduce the amount of infrastructure, including roads and utilities, necessary for residential development.

6. Promote land uses in the County's rural areas that are consistent with the existing rural character and enhance rural economic development with compatible uses.

Applicability:

The following ordinance revisions will apply to those properties that are currently zoned R-8 or A-1.

Definitions:

Note: The definitions section of the County Code will need to be updated to include the new development options.

Permitted Uses:

Note: Residential Permitted Uses would remain the same as currently found in Section 24-212 in the A-1 district and in Section 24-348 in the R-8 district as follows:

A-1 Permitted Residential Uses:
Accessory apartments in accordance with section 24-32.
Accessory buildings and structures.
Accessory uses, as defined herein.
Single-family detached dwellings.

R-8 Permitted Residential Uses:
Accessory apartments in accordance with section 24-32.
Accessory buildings and structures.

Accessory uses, as defined herein.
Site-built single-family detached dwellings and modular homes.

Residential Subdivision Options to be added to Both Districts:

1. Single Family Residential Subdivisions, under the Fixed Lot Development Option, provided that they contain 7 or fewer lots, and subject to Section _____

2. Single Family Residential Subdivisions, under the Conventional Development Option subject to Section _____

3. Single Family Residential Subdivisions, under the Base Density Cluster Option subject to Section _____

4. Single Family Residential Subdivisions, under the Rural Conservation Cluster Option, provided that they contain 30 or fewer lots, and subject to Section _____

Note: The non-residential permitted uses have been omitted in this draft and should be incorporated at a future date, when the County reviews the existing non-residential lists in the A-1 and R-8 districts and considers the addition of emerging rural economic development uses.

Additional Special Use Permit Uses:

Single Family Residential Subdivisions under the Rural Conservation Cluster Option, provided that they contain more than 30 lots, as described below.

Note: The other special permit uses allowed in the R-8 and A-1 districts have been omitted in this draft and will be added at a future date, when the County evaluates permitted and permissible uses in the A-1 and R-8 districts.

Special Use Permit Criteria:

Note: Most of the existing Special Use Permit criteria in the R-8 and A-1 districts relate to non-residential uses. New criteria for Rural Conservation Clusters over 30 units are included later in this draft.

Calculation of Residential Density:

For all residential subdivision development options in this district, except for the Rural Conservation Cluster Option, residential density shall be calculated based

on the gross (total) site area. Gross site area shall include all portions of the property subject to the subdivision application.

Residential development density in subdivisions developed under the Rural Conservation Cluster Option shall be calculated based on net developable density, defined as follows:

Developable area shall consist of the total site area minus intermittent (as defined by County Code) and perennial streams; 100 year floodplain, as defined in Section 24-590; wetlands regulated by the Army Corps of Engineers, the Virginia Marine Resource Commission, or Virginia Department of Environmental Quality; and contiguous areas of 5,000 square feet or greater with slopes exceeding 25 percent gradient

Eligibility for Residential Subdivision Options:

Notwithstanding Section 24-214(b), Residential Subdivisions, subject to these provisions, may be permitted by right or by special use permit, as applicable, on any parcel of record as of [Date & Time of Adoption of Ordinance] that:

a. meets the specific minimum parcel size for the proposed subdivision type;

b. is zoned A-1 or R-8 at the time of the subdivision or special permit use application.

Residential Development Options:

The following four residential development subdivision options are permitted:

1. Fixed Lot Development Option
2. Conventional Development Option
3. Base Density Cluster Option
4. Rural Conservation Cluster Option

Note: Provisions for each development option follow in another section.

GENERAL REGULATIONS

NOTE: The general regulations for the underlying A-1 or R-8 district would apply except where more specific requirements (lot size, lot area, setbacks,

building heights, lot width, etc.) are provided under the individual subdivision options.

Minimum Lot Size:

Note: The minimum lot sizes for the new subdivision options are listed under specific provisions for each option. Lot standards for non-residential uses in this district shall be determined after the non-residential use list is evaluated by the County. The current minimum non-residential lot size is 1 acre in A-1 and 3 acres in R-8.

FIXED LOT DEVELOPMENT OPTION

The following provisions shall apply to single family residential development that uses the Fixed Lot Development Option:

Applicability of Regulations:

The Fixed Lot Subdivision is a by-right development option in the A-1 and R-8 zoning districts.

Minimum Lot Size/ Density:

The minimum lot size for residential development under the Fixed Lot Development Option shall be 2 acres and overall gross density may not exceed 1 unit per 3 acres.

The maximum number of residential lots that can be subdivided under this option for any tract size is limited to 7 lots, including the parent tract; except that lands to be used exclusively as open space and subject to an easement in a form approved by the County, shall not count toward the 7 lot limit.

If the property is fully subdivided into 7 residential lots upon initial development, further subdivision of the resulting lots will not be permitted.

If an initial subdivision includes less than 7 residential lots, including the parent tract, the subdivider must either submit a binding phasing plan for the remaining lots, or shall provide deed restrictions that prohibit further subdivision of lots and include a statement on the subdivision plat relinquishing any further development rights.

Setback Requirements:

Front setback:	Min. 75 ft. from Right of Way for streets 50 ft. or wider; min. 100 ft. from Center Line for streets less than 50 ft. wide
Front setback along a Community Character Corridor:	150 ft
Minimum lot width at front setback line:	175 ft.
Minimum lot frontage abutting public Right of Way	25 ft.
Side setback:	40 ft, except that the total of individual adjoining side setbacks on adjoining residential lots within the subdivision must equal at least 100 ft.
Rear setback:	75 ft.

Height Limits:

Single family dwellings may be built to a height of 35 feet, which may be increased to 45 feet provided that the two side yards for the building are increased by one foot for each additional foot of building height over 35 feet.

Special Provisions:

Future subdivision of the resulting lots will not be permitted.

Required Open Space:

A minimum of 30% of the site shall be maintained in public or private open space that is restricted from further development by the establishment of permanent conservation easements held in perpetuity by a public or private entity acceptable to the County, pursuant to Section _____,

CONVENTIONAL DEVELOPMENT OPTION

The following provisions shall apply to single family residential development that uses the Conventional Development Option:

Applicability of Regulations:

The Conventional Subdivision is a by right development option in the A-1 and R-8 zoning districts.

Minimum Lot Size:

The minimum lot size for residential development under the Conventional Development Option shall be 12 acres.

Setback Requirements:

Front setback:	200 ft. on existing primary and secondary roads; 100 ft. on internal subdivision roads
Front setback along a Community Character Corridor:	Minimum 400 ft.; may be reduced to 200 ft. if it is demonstrated that the intent of the ordinance to protect conservation resources is being met to an equivalent degree
Minimum lot width at front setback line:	400 ft.
Minimum lot frontage abutting public Right of Way	25 ft.
Side setback:	50 ft.
Rear setback:	100 ft.

The Development Review Committee (DRC) may approve reductions of setbacks for the purpose of protecting conservation resources.

Height Limits:

Single family dwellings may be built to a height of 35 feet, which may be increased to 45 feet provided that the two side yards for the building are increased by one foot for each additional foot of building height over 35 feet.

Design Standards for Conventional Subdivisions:

The development should be designed so as to provide a quality environment for residents by minimizing its adverse impacts. General considerations for minimal impact are as follows:

1. Road and street layout should use topography so that unnecessary cuts and fills are avoided.

2. Road and lot layouts and utility lines should be designed to avoid large specimen trees and to be consistent with Section_____ (refer to Statement of Intent).

3. Utility lines shall be placed underground.

4. Road and lot layouts should be designed in a way so that major streams and rivers are left in a natural state.

5. Lots shall not be unusually shaped or elongated solely to conform to area requirements except when necessary to protect topographic features or other natural, cultural or scenic resources that are a priority for conservation.

Special Provisions:

Future subdivision of the resulting lots, with the exception of family subdivisions, subject to Section _____, will not be permitted.

The requirements for communal well systems are hereby waived, and all single family uses under this option may be developed with private, on-site wells.

If the following provisions are met, all of the Major Subdivision provisions under this development option are waived, and the subdivision will be considered a Minor Subdivision, as defined in Section _____:

a. For every two contiguous lots, excluding the parent tract, developed under the Conventional option, a shared driveway, subject to a private access easement recorded for at least the first 50 feet of driveway length measured from the edge of the public right of way, shall be required. In instances where the private access easement is located on a common property boundary, the entire length of the private access easement shall be recorded.

b. No more than 20% of lots in this type of subdivision shall be flag lots. The DRC may grant a waiver of the flag lot restriction due to topographic

constraints or to allow for site design that better conserves environmental, cultural or scenic resources.

BASE DENSITY CLUSTER DEVELOPMENT OPTION

The following provisions shall apply to single family residential development that uses the Base Density Cluster Development Option:

Applicability of Regulations:

The Base Density Cluster Subdivision is a by right development option in the A-1 and R-8 zoning districts.

Minimum Lot Size and Density Requirements:

The minimum lot size for residential development under the Base Density Cluster Development Option shall be 8 acres. The maximum gross density under this option shall be 1 unit per 12 acres.

Required Open Space:

A minimum of 30% of the site shall be maintained in public or private open space that is restricted from further development by the establishment of permanent conservation easements held in perpetuity by a public or private entity acceptable to the County, pursuant to Section _____.

The maximum residential density under this option is one unit per 12 acres; except that a lot(s) that is to be used exclusively as open space and subject to an easement in a form approved by the County shall not count toward the density calculation.

If the property is fully subdivided into a density of one residential unit per 12 acres upon initial development, further subdivision of the resulting lots will not be permitted.

If an initial subdivision is developed to a density of less than one unit per 12 acres, including the parent tract, the subdivider must either submit a phasing plan for the remaining lots, or shall provide deed restrictions that prohibit further subdivision of lots and include a statement on the subdivision plat relinquishing any further development rights.

Setback Requirements:

Front setback:	200 ft. on existing primary and secondary roads; 100 ft. on internal subdivision roads
Front setback along a Community Character Corridor:	Minimum 400 ft.; may be reduced to 200 ft. if it is demonstrated that the intent of the ordinance to protect conservation resources is being met to an equivalent degree
Minimum lot width at front setback line:	400 ft.
Minimum lot frontage abutting public Right of Way	25 ft.
Side setback:	50 ft.
Rear setback:	100 ft.

Height Limits:

Single family dwellings may be built to a height of 35 feet, which may be increased to 45 feet provided that the two side yards for the building are increased by one foot for each additional foot of building height over 35 feet.

Design Standards for Base Density Cluster Subdivisions:

The development should be designed so as to provide a quality environment for residents by minimizing its adverse impacts. General considerations for minimal impact are as follows:

1. Road and street layout should use topography so that unnecessary cuts and fills are avoided.

2. Road and lot layouts and utility lines should be designed to avoid large specimen trees and to be consistent with Section_____ (refer to Statement of Intent).

3. Utility lines shall be placed underground.

4. Road and lot layouts should be designed in a way so that major streams and rivers are left in a natural state.

5. Lots shall not be unusually shaped or elongated solely to conform to area requirements except when necessary to protect topographic features or other natural, cultural or scenic resources that are a priority for conservation.

Special Provisions:

Future subdivision of the resulting lots, with the exception of family subdivisions, subject to Section _____, will not be permitted.

The requirements for communal well systems are hereby waived, and all single family uses under this option may be developed with private, on-site wells.

If the following provisions are met, all of the Major Subdivision provisions under this development option are waived, and the subdivision will be considered a Minor Subdivision:

a. For every two contiguous lots, excluding the parent tract, developed under the Base Density Cluster option, a shared driveway, subject to a private access easement recorded for at least the first 50 feet of driveway length measured from the edge of the public right of way, shall be required. In instances where the private access easement is located on a common property boundary, the entire length of the private access easement shall be recorded.

b. No more than 20% of lots in this type of subdivision shall be flag lots. The DRC may grant a waiver of the flag lot restriction due to topographic constraints or to allow for site design that better conserves environmental, cultural or scenic resources.

RURAL CONSERVATION CLUSTER DEVELOPMENT OPTION

The following provisions shall apply to single family residential development that uses the Rural Conservation Cluster Development Option:

Applicability of Regulations:

The Rural Conservation Cluster Subdivision must be located in an existing A-1 or R-8 zoning district. A Rural Conservation Cluster Subdivision of 30 lots or fewer is a by-right development option. A Rural Conservation Cluster Subdivision of

more than 30 lots requires approval of a Special Use Permit, subject to Section _____.

Required Open Space:

A minimum of 60% of the site shall be maintained in public or private open space that is restricted from further development by the establishment of permanent conservation easements held in perpetuity by a public or private entity acceptable to the county, pursuant to _____, and shall be known as the Cluster Conservation Area.

Developed Area:

A maximum of 40% of the site may be developed in residential cluster lots and shall be known as the Cluster Development Area.

Density:

The Maximum Net Density in the Rural Conservation Cluster, including Cluster Conservation Areas and Cluster Development Areas shall not exceed 1 unit per 4 acres and must be calculated in accordance with the provisions of Section ____.

Lot Types and Sizes:

In a Rural Conservation Cluster, the tract shall be subdivided into two types of lots hereafter established:

Cluster Lots – located in the Cluster Development Area, the minimum lot size for Cluster Lots shall be 0.75 acres.

The 0.75-acre minimum required lot area of a cluster lot may not include non-developable areas and public or private roadways.

The maximum average lot size of all the cluster lots in a subdivision shall be 1.5 acres.

Conservancy Lot – located in the Cluster Conservation Area, the Conservancy Lot shall be in public or private ownership that is restricted from further development, except that –-if the lot is in private ownership--there shall be allowed one single family residence within the Conservancy Lot. This lot shall be counted in calculating the total density of the subdivision; however, it shall not be counted in calculating the maximum average lot area of the cluster lots.

There shall be no minimum lot size for the Conservancy Lot; however the Conservancy Lot must not be less than 60% of the total Cluster Conservation Area.

Setback Requirements:

Cluster Lot Yard Requirements

Front setback:	30 ft.
Minimum lot width at setback line:	125 ft.
Side setback:	40 ft, except that the total of individual adjoining side setbacks on adjoining residential lots within the subdivision must equal at least 100 ft.
Rear setback:	50 ft.

Height Limits:

Single family dwellings may be built to a height of 35 feet, which may be increased to 45 feet provided that the two side yards for the building are increased by one foot for each additional foot of building height over 35 feet.

Conservancy Lot Yard Requirements

Front setback:	200 ft. from street Right of Way
Minimum lot width at setback line:	400 ft.
Side setback:	100 ft.
Rear setback:	100 ft.

Height Limits:

Single family dwellings may be built to a height of 35 feet, which may be increased to 45 feet provided that the two side yards for the building are increased by one foot for each additional foot of building height over 35 feet.

Right of Way Buffer:

A minimum 200-foot right of way buffer (i.e. cluster development lots must be located at least 200 feet from the adjacent qualifying roadway) must be maintained along all the perimeter property lines for any Rural Conservation Cluster that abuts an existing or planned arterial roadway or a Community Character Corridor. Modification or waiver of this buffer requirement may be approved by the DRC if it is determined that a reduction is needed due to the topography, forestation, or presence of prime agricultural soils or environmentally sensitive areas, and that such reduction will preserve rural vistas, preserve farmland, screen dwellings from existing roads or adjacent properties, or preserve environmentally sensitive areas to an equivalent degree.

Standards to Determine Conservation Area:

The following primary features are required to be included within the Cluster Conservation Area, unless the Applicant demonstrates to the DRC that this provision would constitute an unusual hardship related to the physical characteristics of the site and be counter to the purposes of this article:

1. The 100-year floodplain
2. All areas within the Chesapeake Bay Resource Protection Area (RPA)
3. Slopes above 25% of at least 5000 square feet contiguous area
4. Populations of endangered or threatened plant species, or habitat for such species
5. Archaeological sites, cemeteries and burial grounds as may be identified in accordance with the James City County 1998 Archaeological Policy, the Comprehensive Plan or the 1997 archaeological assessment prepared by The William and Mary Center for Archaeological Research or the James City County Historical Commission
6. Important historic sites as identified on the National Register of Historic Places, the Virginia Landmarks Register, the Comprehensive Plan, the James City County Historical Commission or the 1986 (updated 1992) historic inventory of James City County prepared by the Colonial Williamsburg Foundation

The following are important secondary features that should be included within the Cluster Conservation Areas to the maximum extent feasible, consistent with the preservation of significant conservation resources per Section _____ (Statement of Intent), such as:

1. Existing healthy, native forests of at least ten acres contiguous area
2. Other significant natural features and scenic viewsheds such as ponds and views to open water, particularly those that can be seen from public roads
3. Prime or statewide important agricultural lands of at least twenty acres contiguous area
4. Existing trails that connect the tract to neighboring areas
5. Natural habitat area associated with threatened or endangered plant species

On the application for development, the applicant shall identify which of the features listed above is the dominant resource feature(s) of the Conservation Area, and how the development plan is designed to conserve that resource. The Conservation Area shall adjoin any neighboring areas of Conservancy Lots, other protected areas, and non-protected natural areas that would be candidates for inclusion as part of a future area of protected Conservancy Lots.

CONSERVANCY LOTS

1. The Conservancy Lot shall be subject to a permanent conservation easement and shall be permanently restricted from future subdivision and residential development.

2. One single family home shall be permitted on a Conservancy Lot. Under no circumstances shall any additional dwelling units be permitted on the Conservancy Lot at any time except that one tenant house or property caretaker's dwelling may be permitted on Conservancy Lots of 25 acres or more, subject to Board of Supervisors approval of a special use permit, provided the following conditions are met:

a. No tenant/property caretaker dwelling unit shall exceed 1,200 square feet in floor area, unless a greater square footage is approved by the Board of Supervisors

b. At least one occupant of the tenant dwelling shall be an employee or family member who derives all or part of his/her income from labor performed on the farm where the unit is located; or, if the unit is a property caretaker unit, it may only be occupied by the caretaker and their immediate family.

3. The Conservancy Lot shall include at least 60% of the Cluster Conservation Area.

Conservancy Lot Ownership:

1. Conservancy Lots may be held under one or more of the following forms of ownership:

1. Conservancy Lots may be owned by an individual provided it is subject to a permanent conservation easement prohibiting future development in perpetuity which is held by a public or private entity acceptable to the County, or

2. Conservancy Lots may be owned by a Homeowners Association subject to a permanent conservation easement in a form acceptable to the County, that identifies the Conservancy Lot for common use by residents of the Residential Cluster Development, and that precludes future subdivision or development; or,

3. A Conservancy Lot may be owned by a public or private non-profit entity, whose primary purpose is conservation, that is acceptable to the County, provided it is subject to a permanent conservation easement prohibiting future development in perpetuity executed in a form acceptable to the County.

Road and Design Standards:

1. All lots shall be accessed by an internal road network that is connected to an existing public road. Internal roads shall be public roads designed to meet VDOT standards and be eligible for acceptance into the VDOT system. Private streets may be permitted for clusters with a Special Use Permit.

2. Newly created individual lots may not access an existing public road, with a VDOT State Route number of 600 or lower, unless the point of access existed prior to approval of the cluster development option and the access point serves an existing residential, agricultural or historic structure that is to be retained and incorporated into the cluster development.

Rural Conservation Cluster Approval Process

Application and Review Process for Rural Conservation Clusters

Master Plan Required: A master plan of development for all Rural Conservation Cluster development proposed under this section shall be filed with the Planning Director. The Planning Director shall submit master plans for all Rural Conservation clusters to the DRC.

The Planning Director shall submit the master plan of development for large Rural Conservation clusters (more than 30 lots), which require special permit approval, to the planning commission and board of supervisors. The Planning Director shall recommend action on the development plan to the Planning Commission, and to the Board of Supervisors in instances where a special permit is required. The Planning Commission and Board of Supervisors, where applicable, shall approve the plan of development upon finding that:

(1) Such cluster development will preserve substantial, sustainable areas of the most significant conservation resources on the property;

(2) The cluster development will not impair the character of the area or create unacceptable adverse offsite infrastructure impacts; and

(3) The proposed project is in accordance with the Comprehensive Plan of James City County; and

(4) The structures within the residential cluster development are sited in a way that preserves prominent open space features which are within or adjoin the site, such as open fields, forests or farmland, scenic vistas, sight lines to historic areas or structures, and archaeological sites.

Master Plan Features: The master plan of development shall identify non-developable areas, proposed cluster conservation areas, cluster development areas and proposed cluster lots and conservancy lots, and if applicable, phasing. The master plan of development shall be prepared by a licensed surveyor, engineer, architect, landscape architect or a planner. A scale shall be used so that the entire parcel can be shown on one piece of paper no larger than 36 inches by 48 inches. It shall include:

(1) A statement of one or more conservation resources on the property that the plan is designed to protect.

(2) An inset map at a scale of not less than one inch to one mile, showing the property in relation to surrounding roads, subdivisions or landmarks.

(3) A north arrow.

(4) The location of existing property lines, existing above and below-ground utility easements, scenic easements, watercourses or lakes, wooded areas and existing woods which are within or adjoin the property.

(5) The boundaries of each section, topography and approximate location of proposed streets, proposed areas and uses of open space, proposed parking

areas, proposed recreation areas, proposed lots and/or buildings, and phasing of development.

(6) Marginal data which shows the gross acreage of the site, the net developable area, the total number of dwelling units and/or lots, required open space, lots sizes and lot averages.

(7) Location of wells, septic fields and communal systems.

(8) All required setbacks, right-of-way buffers and perimeter buffers; all preserved tree areas, preserved slopes,

Status of Master Plan. The approval of the Master Plan under this section shall not be considered an approved preliminary plat as defined in the subdivision ordinance.

Amendment of Master Plan. Upon application, an approved plan of development may be amended by the planning director; provided, however, that a proposed amendment does not:

(1) Alter a recorded plat.

(2) Conflict with the requirements of this article.

(3) Change the general character or content of an approved master plan of development.

(4) Impair the character of the surrounding area.

(5) Result in any substantial change of major external access points.

(6) Increase the approved number of dwelling units for any portion of the previously approved residential cluster development. Proposed amendments that do not meet these criteria shall be referred to the Planning Commission and Board of Supervisors, where applicable, for review and action.

Master Plan-Agreement. Prior to final approval of the first sectional plan, an agreement shall be executed between the developer and the county which shall be binding upon the developer, his successors, assigns or heirs to the effect that the approved Master Plan shall govern the development of the total residential cluster development. This provision does not preclude the adjustment of the plan in accordance with Section _____.

SEWER AND WATER REQUIREMENTS

Note: The Technical Committee has also suggested that the following revisions be incorporated into the JCSA utility policy standards.

Fixed Lot Residential Option:

Individual on-site sewage disposal systems (such as a septic system) and individual private wells shall be permitted for minor subdivisions. Communal wells shall not be required in these instances.

Conventional Development Option:

Individual on-site sewage disposal systems (such as a septic system) and individual private wells shall be permitted. Communal wells shall not be required.

Base Density Cluster Option:

Individual on-site sewage disposal systems (such as a septic system) and individual private wells shall be permitted. Communal wells shall not be required.

Rural Conservation Cluster:

0 to 15 lots

Individual on-site sewage disposal systems (such as a septic system) and individual private wells shall be permitted. Communal wells shall not be required.

16 to 30 lots

Individual on-site sewage disposal systems (such as a septic system) shall be permitted. Communal wells shall be required, but may be exempt from fire-flow requirements provided that sprinklers are included in each home.

More than 30 lots

Rural Conservation Clusters containing more that 30 lots will be subject to special use permit consideration by the Board of Supervisors and the utility standards for such clusters will be determined on a case-by-case basis at the time of special use permit review and approval. Such provisions may include the requirement for a communal well with fire-flow requirements unless waived by the Board of Supervisors.

Attachment 8- Table of Existing and Draft Narrative Ordinance Development Options

Option Name	*Approvals*	*Density (units/ acre)*	*Minimum Tract Size*	*Lot Type*	*Minimum Lot Size (acres)*	*Max Lot Size (acres)*	*Required % Open Space*	*Open space can include*	*Street type*	*Water*	*Other notes*
Existing											
Conventional Lot Subdivisions (A-1 & R-8)	By-right	1 per 3	na	na	3	na	0	na	Public	Community well if over 5	Some provisions allow lower min lot size with family subdivision or if lot was created pre-1989
Existing SUP Cluster (A-1 ONLY)	SUP	1 per 2	na	na	1	na	0	Design should provide for "protection of conservation area"	Public (if over 5 lots)	Community well if over 5	Only for single-family dwellings, no less than 3 lots, have to have public street if more than 5 lots, no more than 30% of any lot can be in floodplain.
Proposed by Rural Lands Draft Narrative Ordinance											
Fixed Lot Development	By-right	1 per 3	na	na	2	na	30	na	Public	Individual wells	Can only be used for subdivisions up to 7 total lots (including parent parcel but excluding any lots that are 100% dedicated to open space), bigger front setback along CCC
Conventional Lot Subdivisions	By-right	1 per 12	na	na	12	na	0	na	Public	Individual wells	No further subdivision of created lots permitted. Treated as a minor subdivision as long as every 2 contiguous lots shares a driveway and no more than 20% of lots are flag lots.
Base Density Cluster	By-right	1 per 12	na	na	8	na	30	na	Public	Individual wells	By-right cluster provision to satisfy State Code requirements at same density as Conventional, 100% conservation lots don't count towards density, guidance for handling future subdivisions (either relinquish development rights or turn in a phasing plan for future lots), community well requirement waived, every 2 contiguous lots can have shared driveway, no more than 20% can be flag lots
Rural Conservation Cluster	By-right - DRC (under 30 lots), SUP (over 30 lots)	1 per 4	21	Cluster	0.75	1.5 (average)	60	Required- floodplain, RPA, contiguous areas of 5,000SF of 25% steep slopes, archaeological sites, historic sites, populations of endangered or threatened plants. Optional- farmland, forests, scenic viewsheds, and existing trails.	Public or private (if approved SUP)	0-15 - Individual wells, 16-30 - Community well, 30+ - case-by-case basis	Includes building separation requirements for houses w/ and w/o sprinklers, requires a master plan, requires a perimeter buffer
				Conservancy	60% of conservation area	(not counted)					Can have 1 single-family dwelling, counted towards overall density but not average max lot size, must be under a permanent conservation easement